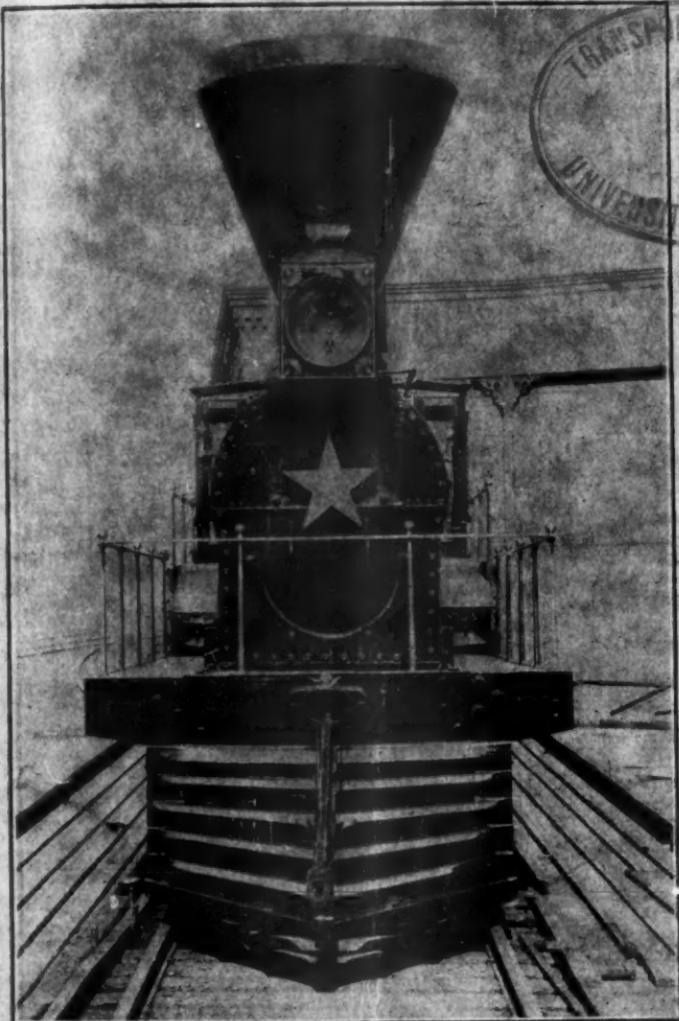


J. S. Worley

~~BULLETIN NO. 8~~



THE RAILWAY AND LOCOMOTIVE
HISTORICAL SOCIETY

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THE RAILWAY
AND LOCOMOTIVE HISTORICAL
SOCIETY



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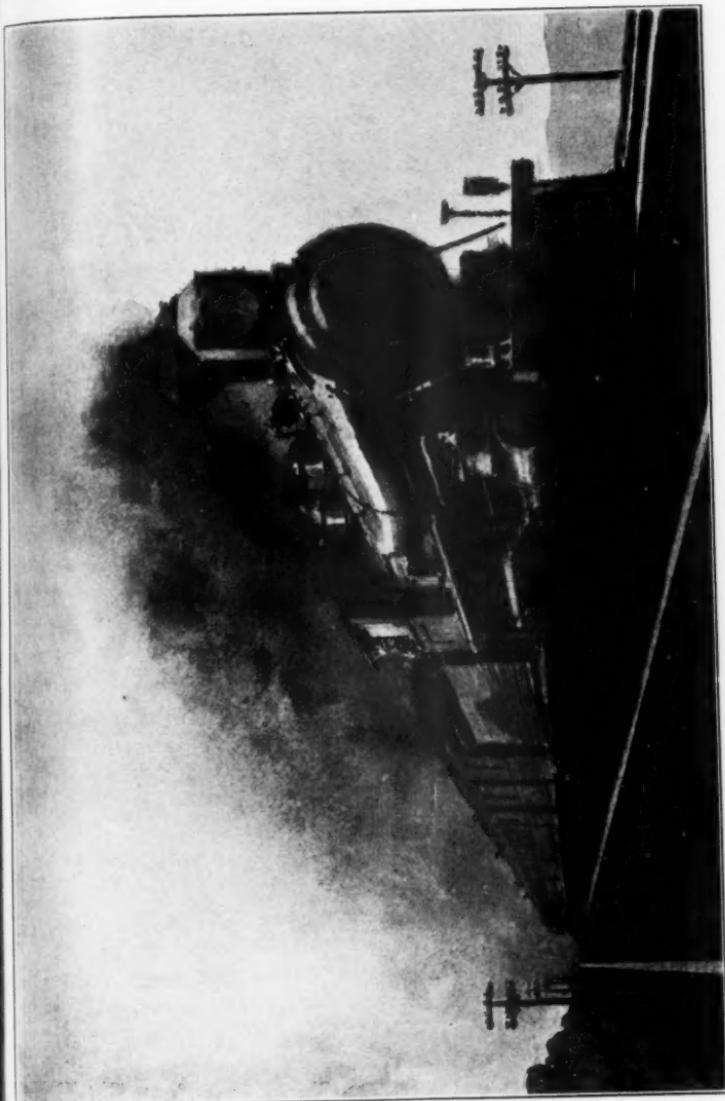
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The above sketch is O. C. R. R. "Pilgrim" #10 and was drawn by E. Andre Schefer,
a member of this Society.

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The Railway & Locomotive Historical Society.

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Copies of this Bulletin can be procured from Mr. Herbert Fisher.

After reviewing the work done by Mr. Clark dealing with the history of locomotive building at Lowell, Mass., our members should not be discouraged on the subject of writing the history of the various builders in this country. We all know of Mr. Clark's ability as a writer and few of us can equal him. The committee recognizes that fact and would urge any of our members who are thus hesitant upon this matter to try. We never know what we can do until we have tried. Get in touch with your committee and likely they can assist you. If you live in or near a large city, visit the library and consult the librarian. Don't expect two or three to do all of it, let us see what you can do. Mr. Sanford has risen to the occasion and contributed a very interesting paper on Mr. M. W. Baldwin. Your editor, after spending considerable of his vacation time and his own personal time has compiled a list of locomotive building plants in this country in 1855. Many will doubtless be new to you, some were to him, and very likely those that are missing were not established at that time. I wish more of our members would take it upon themselves to help out in this matter as it is one of the most interesting subjects this Society has ever started upon and one of the broadest. We need your help.

A locomotive list is not interesting reading. Many of our members reside in New England and nearly everyone has either heard or seen pictures of the Old Colony R. R. locomotives. Through the kind assistance of Messrs. Hazelboom and Patt,

the list of Old Colony engines, as reproduced in this bulletin, is the only complete list of its kind that has ever been reproduced. This should make a valuable reference list for our members.

Affairs Of The Society

Under this heading, it is felt appropriate to call attention to the fact that at the Meeting of the Directors of this Society, held during the beginning of this year, it was voted to abolish the Honorary and Ordinary degree of members. The dues will be \$3.00 per annum and that will include the bulletins as issued. Notices of these bulletins appear in the various trade papers and if your own copy is not received shortly afterwards, write your Vice President, Mr. Herbert Fisher. I am sure our members appreciate the change of these two memberships.

We are trying to find out by this method just how many bulletins we need. The larger our circulation, the more copies of each bulletin, the lower will be the price and the more bulletins will be issued. You can help in this matter. If you can use more than one copy, don't hesitate to write for additional copies. We have one member that takes from three to five of each issue. If you know of anyone who might be interested in any of the material reproduced in them, call his attention to it. He might not only like a copy of that particular bulletin but he might be interested in joining the Society. Get him interested, get him to join if he will, make this Society your Society, give your suggestions to the officers, make them help you in any way that they can. They are your officers and this is your Society and it will be just what you make it.

During the year, since the first of April, we have added twenty-five more members to this Society. Many of them have been Librarians of some of our large universities. It is indeed gratifying to realize that some of our bulletins will not only be permanently preserved in this way, but that confidence is felt that our material is really worth while. We appreciate the honor and we hope to maintain our past standards. Our membership is increasing, but we always want more members.

Has anyone any ideas on the Railroad Centennial?

A Pioneer Locomotive Builder.

By R. H. SANFORD.

Matthias W. Baldwin, the founder of The Baldwin Locomotive Works, born December 10, 1795, in 1825 gave up the jeweler's business in which he was engaged and in which he had made several important improvements, to take up the manufacture of printers' rolls and book-binding machinery.

The new business increased to such an extent that in 1827 larger and more commodious quarters were secured, and at the same time some form of motive power, other than manual, was found absolutely necessary, after several unsatisfactory experiments with animal power and with the best prevailing type of steam engine. Mr. Baldwin decided to build a stationary engine of his own design. This he did and it proved so far superior in many respects to anything on the market, that he at once received requests for duplicates, and immediately the steam engine took its place as one of the principal features of the business.

This little five-horse power engine of 1827-8 is still preserved in good running condition, having furnished power for many of the different departments of the works until supplanted by modern electric appliances.

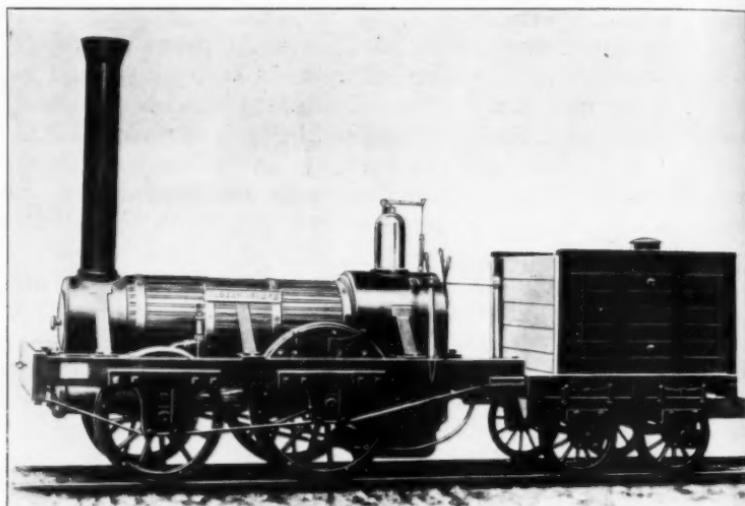
There can be no question that the construction of this stationary engine turned Mr. Baldwin's attention to the building of the locomotive and it is quite apparent that The Baldwin Locomotive Works should be allowed to take 1827 as the date of its founding.

Before Horatio Allen in 1829, representing the Delaware & Hudson Canal Company, brought over the "Stourbridge Lion" (the first engine to run in the United States) the experiences and experiments of "Trevithick," "Stephenson," and our own "Oliver Evans" were undoubtedly quite familiar to Mr. Baldwin. It is certain that he needed no urging when in 1830 he was invited by Franklin Peale, the owner of the Philadelphia Museum, to build a miniature locomotive to be shown as one of the exhibits. This locomotive was placed in operation in the Museum April 25, 1831, and attracted great attention as it was the first time in Philadelphia or in the State of Pennsyl-

vania that the public had an opportunity of witnessing the effect of steam in railroad transportation.

The success of the Peale model brought Mr. Baldwin an order from the Philadelphia, Germantown & Norristown R. R. Company for a locomotive to run on the six miles of road at this time completed between Philadelphia and Germantown. This line had been previously operated by horses.

This being the first locomotive built by Mr. Baldwin for regular road service, it is natural to suppose that many difficulties were encountered both in design and construction. Pre-



"Old Ironsides". The first locomotive built by M. W. Baldwin in 1832.

vious experience was slight; tools for handling heavy work were scarce, and capable workmen hard to obtain, however, by doing much of the manual work himself, Mr. Baldwin succeeded in overcoming all the difficulties and the locomotive, "Old Ironsides" was tried on the road November 23, 1832.

The "Ironsides" was a four-wheeled locomotive, having a single pair of driving wheels and a pair of leading wheels, both pairs attached rigidly to a wooden frame. It had a horizontal tubular boiler, the cylinders were nine and one-half inches in diameter and eighteen inches stroke; the tender was a four

wheeled platform with wooden sides, furnishing a space for wood in the front and an iron box for water at the back. The weight of the engine was a little in excess of five tons. Although the engine was considered a remarkable achievement, it was found in service in some respects unsatisfactory on the rough and uneven track encountered. Any undue oscillation was liable to cause derailment on account of the leading wheels being rigidly attached to the frame. The valve motion was found to be unreliable and had to be changed, and the driving wheels gave trouble by coming loose.

It is quite true that Mr. Baldwin was somewhat discouraged with the results attending the building of his first locomotive. He was not prepared, however to let the matter drop. Although it was two years before he built his second engine he was evidently giving the matter a great deal of careful study. In his second engine, the "E. L. Miller," he avoided all the mistakes of the "Ironsides," and brought out a general design which he used for many years and which was closely copied by the majority of the American locomotive builders.

The "Miller" was built for the Charleston & Hamburg R. R. Co., February 18, 1834, and was unique in many respects; the four wheeled or "Planet" type, which up to this time had been considered a suitable pattern, was entirely discarded; the boiler which was horizontal, with a "Bury" dome, was proportionately larger than any previously built to insure adequate steaming qualities. The driving wheels were placed at the rear of the firebox; heavy wooden frames were placed outside of the driving wheels and formed a support for the boiler, the driving box pedestals and the cylinders, these latter were placed well forward and secured to the boiler at the smokebox end. Under the cylinder and supporting the front end of the engine was placed a four-wheeled center bearing swiveling truck, the weight was well distributed between the driving wheels and the truck, and the whole formed a flexible unit which was not liable to be derailed and which was easy on the track.

Other features of construction used on this engine, which were peculiar to Mr. Baldwin and used for many years, were the half crank axle patented September 10, 1834, in which the wheel center was made to form one arm of the crank; the wrist of the crank at each extremity of the axle was forced into one of

the spokes of the wheel center. The advantage gained was a stronger crank and a wider spread between the two, allowing the main connecting rod to pass a reasonable wide firebox. Another feature was the valve motion given by a single fixed eccentric for each cylinder and noted for the simplicity of its working parts. This device gave rise to an animated discussion among engineers as to whether with its use it was possible to obtain the required lead in both front and back motion. Mr. Baldwin demonstrated by actual practice that this could be done.

In 1834, the Philadelphia & Columbia Railroad was opened. This was at that time the State Road and is now a part of the Pennsylvania System.

A controversy arose as to what motive power should be adopted, some claimed that horses should be used on the level portions and inclined planes operated by stationary steam engines placed at the heavy grades.

Mr. Baldwin went before the Commonwealth Committee and offered to place a locomotive on the road at his own expense to demonstrate that steam power furnished the best and most economical method of transportation. It is needless to say that his offer was accepted.

The locomotive selected was one partly completed for the Philadelphia & Trenton Railway but was not immediately required as the road was not yet opened. This locomotive was at once put in running condition, given the name "Lancaster" and placed on the road early in July 1834. Records show that it hauled at one time, nineteen loaded burden cars on the highest grades between Philadelphia and Columbia. This was characterized at the time by the Officers of the road "as an unprecedented performance."

The success of the trial was such that the Legislature decided to adopt steam power for working the road and Mr. Baldwin received orders for several additional locomotives; one of which named, "Columbia," was delivered in September of the same year.

The fifth locomotive built was for the Philadelphia & Trenton Railway to replace the "Lancaster" taken for demonstration. This engine, named "Trenton," was placed in service in October 1834 and has a record of an average of 21,000 miles per year to September 1840.

The locomotive business was now fairly under way with a record of five locomotives completed in 1834, followed by fourteen in 1835. The building of stationary engines was still carried on and although there is no record of the number turned out each year, a total of forty-two were completed previous to 1841.

The new shops located at Broad and Hamilton Streets, occupying a part of the present site of The Baldwin Locomotive Works, were completed and occupied early in 1835.

Among the many improvements made by Mr. Baldwin, showing the result of his study and experiment in details of construction on his early locomotives, there are two which are particularly remarkable from the fact that they are still in common use in present day practice. The first is the ground steam joint for boiler fittings. On all the early English boilers a canvas gasket with red lead was used for all steam joints. It was found that with a pressure higher than sixty pounds per square inch, these joints were liable to blow out and give trouble. Mr. Baldwin discovered that by proper manipulation the two metal surfaces could be ground together and form a steam tight joint without the use of a gasket and with which any desired pressure could be carried. This invention was patented September 10, 1834.

The second invention also applied to boiler fittings and consisted in placing a copper ferrule on the outside of the boiler tube at the firebox to make the joint between the tube sheet and the tube; this prevented leakage due to the expansion and contraction of the heated sheet. Forty locomotives were turned out in 1836; thirty-nine in 1837 and twenty-four in 1838.

The falling off in the output was largely due to the financial depression of 1837 which brought ruin to so many business enterprises. Mr. Baldwin was seriously affected, orders were cancelled, work countermanded and payments stopped, making it impossible for him to raise the money to pay his indebtedness and carry on his business and an assignment became inevitable. He called a meeting of his creditors and laid before them an inventory of all his effects, including all his personal property and household goods. He stated that owing to the present financial conditions he was unable to meet his liabilities and that he was ready to turn over to them all his assets

to the last penny. He called their attention, however, to the fact that under an immediate forced sale they would not be able to realize twenty-five per cent of the value, but if they would give him an extension of three years, he guaranteed that he would pay the full amount with interest. They accepted the proposition and the business was continued without a break, and be it said, that although it took more than the stipulated three years to do it, he fulfilled the agreement to the letter.

In 1839, Mr. Baldwin reorganized the business under the firm name of Baldwin, Vail and Hufty, taking into partnership, George Vail and George W. Hufty, the latter having been associated with Mr. Baldwin for a number of years as clerk and finally as manager.

The subject of burning anthracite coal had engaged much attention previous to this time. Phineas Davis with Ross Winans had built some locomotives for the Baltimore and Ohio R. R., in which this fuel was used but these engines all had upright boilers in which, the draft being direct, combustion could be easily maintained.

With a horizontal boiler no satisfactory arrangement of drafting had been discovered to prevent the fire from dying out and losing steam pressure while running. Mr. Baldwin, as early as 1836, secured a patent on the removable grate or fireplace which could be detached from the engine and replaced by another in which a fresh coal fire had been started. It is needless to say that this invention was never used.

In 1838, on an engine for the Germantown Road, he introduced a fan blower attached to the rear of the ash pan, motion being imparted to the fan by friction pulleys brought in contact with the flanges of the rear pair of driving wheels. This device was patented December 31, 1840.

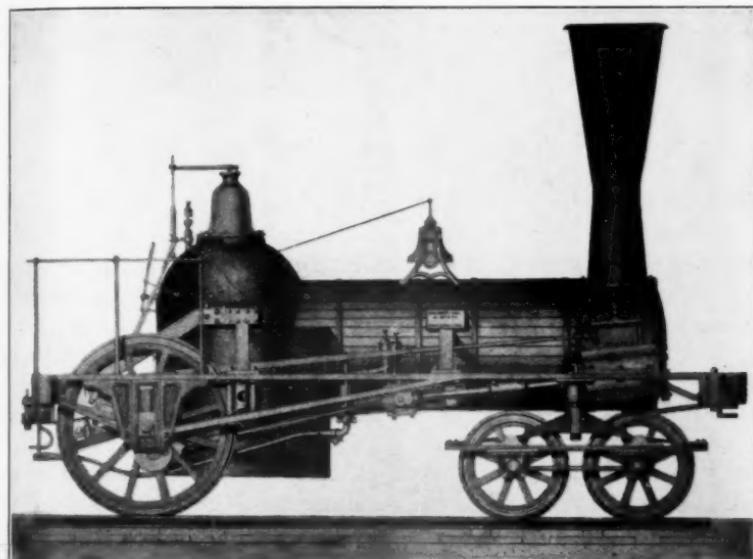
The first locomotives for export were built in April and June 1838, they were ordered by Alfred Cruger for Cuba. Unfortunately, the only record to be found of these engines is the names they bore, "Colon" and "Cervantes."

On a locomotive completed in October 1839 for the Philadelphia, Germantown & Norristown Railway, the old pattern of wooden frames was abandoned and an iron frame of much better and more durable design was substituted.

The question of greater hauling capacity now confronted

Mr. Baldwin. He had gone to the limit of the weight on a single pair of driving wheels permissible without detriment to the track. Other builders were using two, three and even four pairs of adhesion wheels. He claimed that the designs were not scientifically correct. That in passing curves the wheels on one side or the other were bound to slip, which was detrimental to both the engine and the track.

His business was falling off, however, and something had to be done. He experimented first with a plan for utilizing the



First locomotive with iron frames built for the Philadelphia,
Germantown & Norristown R. R., 1839.

swiveling truck wheels for adhesion by placing a cross shaft midway between truck axles, held in alignment by and driven from the main driving axle. A system of gears placed on the center of this shaft connected with corresponding gears on the two truck-axles. The relative size of these gears was such as to allow for the same circumference speed on the truck and driving wheels. The journal boxes of the cross shaft were supported on the truck frame in sliding bearings and did not interfere with the swiveling motion of the truck. By this arrange-

ment all the weight of the locomotive was utilized for tractive power and the flexibility of the wheelbase remained the same as in the engine with a single pair of driving wheels.

An experimental locomotive was built on the above plan in 1840 and was sold in 1841 to the Sugar Loaf Coal Co., and its performance created much favorable comment. The engine was, however, too complicated to suit Mr. Baldwin, although the results obtained were satisfactory. The following year, 1842, he simplified the plan and patented an improvement which contributed more than any of his inventions to the foundation of his business and financial success.

He abandoned the swiveling truck for tractive power but made all three pairs of wheels the same size. All were coupled together, the rear pair held rigidly in the frames but the two forward pairs combined in a separate frame, the two sides of which were deep and wide beams, independent of each other, but forming the pedestals for the four forward driving boxes. These pedestals were bored out and the boxes turned to fit them, this allowed a lateral motion without binding.

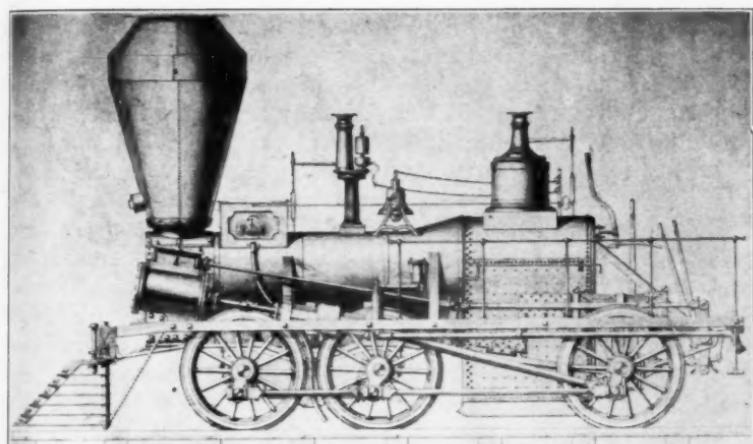
The engine frame on each side was directly over the flexible beam and a spherical pin secured to the frame, bore in a socket in the beam midway between the two axles. Each beam was free to turn horizontally or vertically under the spherical pin and the boxes turn in the cylindrical pedestals. In passing a curve the front pair of wheels would follow the curve and pass to the right and the rear pair to the left (or vice versa) without friction or grinding the flanges of the wheels; the two axles always remaining parallel to each other and to the rear axle. The position assumed by these axles was similar to that of a parallel ruler. On a straight line the two beams and the two axles formed a rectangle and on a curve a parallelogram, the angle varying with the degree of curvature. The stubs of the connecting rods were made with cylindrical brasses to allow for the angularity of the side rods.

The first locomotive of the new design was completed in December 1842 for the Georgia Railroad and Banking Company and the plan was received with great favor and from this time on steady and rapid increase was shown in the business.

In 1841 Mr. George Hufty withdrew and the partnership was continued under the name of Baldwin & Vail until 1842

when Mr. George Vail was succeeded by Asa Whitney and the firm continued under the name of Baldwin & Whitney until 1846 when Mr. Whitney retired to go into the business of making car wheels.

Mr. Whitney had been Superintendent of the Mohawk and Hudson Railroad and brought to the firm a large railroad experience and was just the man needed by Mr. Baldwin to introduce a system of business management. The present locomotive classification used is based on that introduced by Mr. Whitney whose talent was exerted in many ways toward the development of a stronger organization.



Baldwin Six-coupled locomotive with flexible beam truck, 1842.

As the railroad development of the country increased not only a greater number of locomotives was called for but the demand was made for larger units to handle the growing traffic. The adoption of the new plan of six wheeled engines made this demand easy to satisfy. With the six points of adhesion and the weight almost evenly divided a much greater tractive power could be obtained without increasing the total weight of the engine or if so desired the total weight, and corresponding tractive power could be increased without injury to the track to three times the weight usually carried on the single axle.

So great was the popularity of the flexible beam truck

that in 1843 Mr. Baldwin built for the State of Michigan a locomotive named "Hillside" with three pairs of wheels, two pairs of coupled driving wheels and the front pair which was smaller in diameter than the others, was combined with the forward pair of driving wheels in the flexible truck. Ten of this type were built in the next three years, three being for the Royal Wurtemburg Railroad.

In 1846, the Philadelphia & Reading Railway desired a heavier locomotive than any previously built to weigh twenty-five tons. This road had already in service several of the six-wheeled type, weighing eighteen tons and one of twenty tons, all with the flexible truck. A new design was made following logically the six coupled plan but including an additional pair of driving wheels. Two pairs rigidly held in the engine frames and two pairs in the flexible truck with all four pairs coupled. The road received in 1846 of the above type, two locomotives weighing twenty-five tons; and fifteen weighing twenty tons.

In 1845, Mr. Baldwin received an order from the South Carolina Railroad Company for several passenger engines of the eight-wheeled or American type. This type consisting of two pairs of coupled wheels outside connected and a four wheel leading truck was patented by H. R. Campbell in 1836 and shortly after improved by the introduction of equalizing beams between the driving wheels, which device was patented by Eastwick and Harrison. Mr. Baldwin bought these patents and built the engines for the South Carolina Road and thereafter the eight wheeled passenger locomotive became one of the principal types manufactured.

After the withdrawal from the firm of Mr. Whitney in 1846, the business was conducted by Mr. Baldwin alone until 1854 when Matthew Baird, who had been connected with the works for a number of years as foreman, was taken into partnership, the firm then being M. W. Baldwin & Company. This partnership continued until the death of Mr. Baldwin.

The Madison & Indianapolis Railroad constructed an inclined plane on the bank of the Ohio River at Madison with a rise of one in seventeen. This was too steep to be operated by adhesion alone and in 1847 Mr. Baldwin assisted by Mr. Andrew Catheart, Master Mechanic of the road, built a rack and adhesion locomotive to operate on this grade. This locomotive had four pairs of adhesion driving wheels all coupled, with

outside cylinders driven in the ordinary manner. A second pair of vertical cylinders were placed about midway of the engine and supported on the boiler, and by suitable pistons, guides, and rods, were connected to a cross-shaft under the boiler, supported on the engine frames. A pinion at the center of this shaft meshed with a gear of larger size which engaged the rack rail on the road bed. The gear was held in movable bearings so that it might be raised or lowered at will and brought into connection with the rack rail. This was done by a separate steam cylinder on the top of the boiler, acting through a bell crank and lifting rods so that when the incline was reached, the supporting frame was lowered allowing the gear to engage the rack when the grade was passed it could be drawn up out of the way.

Early in 1848 the Vermont Central Railroad was approaching completion and Governor Paine, the President of the road, was anxious to have a locomotive capable of making sixty miles per hour. An offer was made to Mr. Baldwin of ten thousand dollars to build a locomotive which would run a passenger train at that speed. Mr. Baldwin at once undertook to meet the conditions. He recognized the fact that very little more tractive power was needed to run sixty miles per hour than thirty but that extra steam supply must be provided for.

The type selected was similar to that which he had used for many years, comprising a single pair of driving wheels placed back of the firebox, inside connected with half crank axle and a four-wheeled truck in front. The boiler in order to provide ample steaming capacity was made larger and longer than usual and in order to support the extra weight a pair of carrying wheels was placed forward of the firebox. In order to avoid the excessive length of the main connecting rod the cylinders were moved back on the waist of the boiler instead of being placed at the smokebox. The engine named "Governor Paine" gave satisfaction and was used in passenger service for several years during which time it is said to have run a mile in forty-three seconds, which would be at the rate of eighty-three miles per hour. The "Governor Paine" had cylinders seventeen and one quarter inches in diameter and twenty inches stroke; the driving wheels were six feet, six inches in diameter and it weighed about fifty thousand pounds.

Four other similar engines were built shortly after, three

for the Pennsylvania Railroad in 1849 and one for the Hudson River Road in 1850.

The six and eight coupled locomotives with flexible truck were popular engines for freight service. Ninety-one of the former and sixty-two of the latter, were built previous to August 1852 when the first "Ten Wheel" Type was entered in Mr. Baldwin's practice as a new design. The eight wheeler or "American" type for passenger service became a great favorite after he had purchased the patent in 1845. One hun-



Eight-wheel passenger locomotive built by M. W. Baldwin & Co. 1853.

dred and twenty were built previous to the advent of the Ten Wheeler in 1853.

After the introduction of the ten wheeled locomotive the next new type to be brought out was the "Consolidation" in 1866 shortly before the death of Mr. Baldwin. This was a locomotive having four pairs of coupled wheels and a leading single or pony truck placed forward of the cylinders and fitted with a swing bolster and radius bar, the center pin being connected through equalizing beams with the springs of the forward pair of driving wheels. The locomotive was built for the Lehigh & Mahanoy R. R. under the direction of Alexander Mitchell, Master Mechanic of the road. It was at the time when this road was consolidated with the Lehigh Valley Railroad and from this fact was given the name "Consolidation".

and the type it represents which is largely used at the present time has always been designated by that name.

In his later years, Mr. Baldwin was impressed with the idea that some form of rotary steam engine would be a vast improvement over the reciprocating type. He spent much of his spare time in experimenting but without satisfactory results.

No account of Mr. Baldwin would be complete without a tribute to his personality. His was an exemplary Christian character self-denying and generous to a fault. He was extremely fond of music and art. He prided himself on his beau-



Locomotive "Consolidation" built for the Lehigh & Mahanoy R. R. 1866.

tiful flower gardens and he enjoyed having others visit them. His benefactions to charitable and religious institutions were large but unostentatious. He took great interest in archery and was President of the Philadelphia Archery Club. At his country residence, in Wissinoming, near Frankford, Pa., he maintained a Park stocked with deer and other smaller animals which he kept as pets. He was a charter member of the Franklin Institute in which he took an active part. He was President of the Horticultural Society from 1858 to 1863. He was a member of the Board of Directors of the Pennsylvania Academy of Fine Arts. He was a member of the Musical Fund Society and took great interest in its work. He was a member of the State Legislature in 1853. Mr. Baldwin died September 7, 1866.

FIRST ONE HUNDRED LOCOMOTIVES BUILT BY M. W. BALDWIN PREVIOUS TO
JANUARY, 1838 WITH DIMENSIONS AS FAR AS RECORDS SHOW.

Name of Road	Date	Serial No.	Name of Locomotive	Driving Wheels	Cylinders	Weight
Phila. Germantown & Norristown	1-12-1833	1	"Old Ironsides"	54	9 $\frac{1}{2}$ x18	12,000
Charleston & Hamburg	2-18-1834	2	"E. L. Miller,"	54	10 x16	16,500
Phila. & Columbia	6-25-1834	3	"Lancaster"	54	10 $\frac{1}{2}$ x16	20,000
Phila. & Columbia	9- 2-1834	4	"Columbia"	54	10 $\frac{1}{2}$ x16	20,000
Phila. & Trenton	10-21-1834	5	"Trenton,"	54	10 $\frac{1}{2}$ x16	20,000
Phila. & Columbia	11-26-1834	6	"Philadelphia,"	54	11 x16	23,000
Phila. & Columbia	1- 3-1835	7	"Pennsylvania,"	54	10 $\frac{1}{2}$ x16	20,000
Phila. & Columbia	2- 7-1835	8	"Delaware,"	54	10 $\frac{1}{2}$ x16	20,000
Phila. & Columbia	3-12-1835	9	"Susquehanna,"	54	10 $\frac{1}{2}$ x16	20,000
Phila. & Columbia	4- 1-1835	10	"Schuykill,"	54	10 $\frac{1}{2}$ x16	20,000
Phila. & Trenton	5- 1-1835	11	"Black Hawk"—outside connected			
Rensselaer & Saratoga	6- 6-1835	12	"Champion,"			
Rensselaer & Saratoga	7- 3-1835	13	"Erie,"			
Phila. & Columbia	7-14-1835	14	"Kentucky,"			
Phila. & Columbia	9- 5-1835	15	"Juniaatta,"			
N. J. Transportation Co.	9- 5-1835	16	"Newark,"			
Phila. Germantown & Norristown	10-17-1835	17	"Eagle,"			
Phila. & Columbia	10-21-1835	18	"Braudywine,"			
Brooklyn & Jamaica	11-28-1835	19	"Ariel,"			
Tesumbria & Decatur	12-10-1835	20	"Triumph,"			
N. J. Transportation Co.	1- 9-1836	21	"New Jersey,"			
Phila. & Columbia	2- 8-1836	22	"Ohio,"			
Charleston & Hamburg	2-24-1836	23	"E. J. Ravenal,"			

Phila. & Columbia
Charleston & Hamburg

2- 8-1836 22 "Ohio"
2-24-1836 23 "E. J. Ravenal"

Name of Road	Serial No.	Date	Name of Locomotive	Driving Wheels	Cylinders	Weight
Charleston & Hamburg	24	3- 4-1836	"Philadelphia",			
Boston & Worcester	25	3- 5-1836	"Wm. Penn",			
Brooklyn & Jamaica	26	3-23-1836	"Post Boy",			
N. J. Transportation Co.	27	3-30-1836	"New Brunswick",			
Utica & Schenectady	28	4-26-1836	"No. 1",			
Utica & Schenectady	29	4-30-1836	"No. 2",			
Boston & Providence	30	5- 2-1836	"Baldwin No. 1",			
Phila. Germantown & Norristown	31	5-26-1836	"Arabian",			
Utica & Schenectady	32	6- 2-1836	"No. 3",			
Utica & Schenectady	33	6- 4-1836	"No. 4",			
Boston & Providence	34	6-15-1836	"Baldwin No. 2",			
Utica & Schenectady	35	6-22-1836	"No. 5",			
Utica & Schenectady	36	7- 2-1836	"No. 6",			
Utica & Schenectady	37	7-14-1836	"No. 7",—Sold to Chicago & Northwestern and name changed to "Pioneer",			
Utica & Schenectady	38	7-19-1836	"No. 8",			
Boston & Providence	39	7-28-1836	"Baldwin No. 3",			
Phila. & Reading	40	8-11-1836	"Neversink",			
Lake Wimico & St. Joseph	41	8-13-1836	"Philadelphia",			
Lake Wimico & St. Joseph	42	8-13-1836	"St. Joseph",			
West Feliciana	43	8-13-1836	"Woodville",			
Wilmingtn & Susquehana	44	8-22-1836	"Delaware",			
Phila. & Trenton	45	8-24-1836	"Pennsylvania",			
Little Schuylkill	46	9- 2-1836	"Tamaqua",			
Little Schuylkill	47	9-21-1836	"Tuscarora",			

Name of Road	Serial No.	Date	Name of Locomotive	Driving Wheels	Cylinders	Weight
Vicksburg	48	9-21-1836	"Mazzappa"	11½x16	23,000	
Vicksburg	49	9-21-1836	"Mississippi"	11½x16	23,000	
Tonawanda	50	9-30-1836	"No. 1,"			
Tonawanda	51	10-11-1836	"No. 2,"			
New Orleans & Carrollton	52	10-13-1836	"Clinton,"			
Georgia R. R. & B. Co.	53	10-16-1836	"Georgia,"			
West Feliciana	54	10-23-1836				
Wilmington & Susquehanna	55	10-26-1836	"Maryland,"			
Wilmington & Susquehanna	56	11-2-1836	"Christiana,"			
Harrisburg & Lancaster	57	11- 4-1836	"Middletown,"			
Phila. & Trenton	58	11-24-1836	"New Jersey,"			
Harrisburg & Lancaster	59	12- 6-1836	"Mount Joy,"			
Georgia R. R. & B. Co.	60	12-22-1836	"Pennsylvania,"	60	11 x16	22,000
Georgia R. R. & B. Co.	61	1- 9-1837	"Tennessee,"			
Harrisburg & Lancaster	62	1-29-1837	"Flying Dutchman,"	10½x16	20,000	
Phila. & Columbia	63	2- 2-1837	"Westchester,"	10½x16	20,000	
Harrisburg & Lancaster	64	2-18-1837	"Harrisburg,"	10½x16	20,000	
Phila. & Columbia	65	2-18-1837	"Paoli,"			
Phila. & Columbia	66	2-18-1837	"Virginia,"			
Phila. & Columbia	67	2-18-1837	"Conestoga,"	12	x16	26,000
Phila. & Columbia	68	3- 6-1837	"Edward F. Gay,"			
Phila. & Columbia	69	3- 6-1837	"Octorara,"			
N. J. Transportation Co.	70	3-21-1837	"Rahway,"			
Boston & Worcester	71	3-30-1837	"Elephant,"			
Phila. Germantown & Norristown	72	3-30-1837	"Eclipse,"			
Phila. & Columbia	73	3-30-1837	"Parkesburg,"			
Phila. & Columbia	74	3-30-1837	"Trenton,"			

—22—

Driving Cylinders
Wheels Weight
Locomotive
Name of Road

Date

Driving Cylinders
Wheels Weight
Locomotive
Name of Road

Name of Road	Date	No.	Name of Locomotive	Driving Wheels	Cylin- ders	Weight
Phila. & Columbia	3-30-1834	72	"Parkesburg,"			
Phila. & Columbia	3-30-1837	73	"Lancaster,"			
Phila. & Columbia	4-10-1837	74	"Peonia,"			
Phila. & Columbia	4-18-1837	75	"Indiana,"			
Phila. & Columbia	4-27-1837	76	"Reindeer,"			
Phila. Germantown & Norristown	4-27-1837	77	"Eclipse,"			
Mobile & Cedar Point	4-28-1837	78	"Mississippi,"			
Phila. & Columbia	5- 8-1837	79	"Montgomery,"			
Phila. & Columbia	5-15-1837	80	"Adrian,"			
Phila. & Columbia	5-15-1837	81	"Wisconsin,"			
Erie & Kalamazoo	5-26-1837	82	"Conewago,"			
Phila. & Columbia	6- 1-1837	83	"No. 9,"			
Harrisburg & Lancaster	6- 5-1837	84	"C. B. Penrose,"			
Utica & Schenectady	6-29-1837	85	"No. 10,"			
Harrisburg & Lancaster	7- 1-1837	86	"No. 11,"			
Utica & Schenectady	7-19-1837	87	"E. Townsend,"			
Utica & Schenectady	7-24-1837	88	"Downington,"			
N. J. Transportation Co.	8- 4-1837	89	"Brandywine,"			
Phila. & Columbia	8-24-1837	90	"Toledo,"			
Wilmington & Susquehanna	8-24-1837	91	"Detroit,"			
Erie & Kalamazoo	9- 6-1837	92	"Edisto,"			
State of Michigan	9-18-1837	93	"Ann Arbor,"			
Charleston & Hamburg	10- 2-1837	94	"Barnwell,"			
State of Michigan	10- 4-1837	95	"No. 12,"			
Charleston & Hamburg	10- 4-1837	96	"Florida,"			
Utica & Schenectady	11- 7-1837	97	"Chambersburg,"			
Georgia R. R. & B. Co.	11-23-1837	98	"Louisiana,"			
Cumberland Valley	12- 1-1837	99	"Kentucky,"			
Georgia R. R. & B. Co.	12-18-1837	100	"Christiana,"			
Wilmington & Susquehanna	1-16-1838					

Locomotive Shops In The United States In 1855.

By CHAS. E. FISHER.

In connection with the several articles that will follow in our bulletins covering each locomotive building plant a brief survey of the locomotive builders in this country in 1855 may be of interest to our members. It is not the purpose to compare one builder's product with another but such comments as have been made were noted by the author in getting this material together. Listing these locomotive works geographically the first comes

Portland Locomotive Works, Portland, Maine. Owned by the "Portland Company". George Warren, President; Charles Jones, Treasurer; John Sparrow, Superintendent and John F. Bateman, General Foreman. This Company was incorporated in 1848 and now has a capital of \$180,000.00. The works have the following extent: brick machine shop 225x63 feet, foundry 175x63 feet; car shop 200x50 feet; blacksmith shop 200x60 feet; with 30 fires; boiler shop 125x50 feet. To date they have built nearly one hundred engines, mostly for the Atlantic & St. Lawrence road. Have employed 365 men and could employ 500--capacity equal to five engines a month.

Amoskeag Manufacturing Co., Manchester, New Hampshire. William Amory, Treasurer, 65 State St., Boston, Mass. Mr. Cyrus Baldwin, Agent and Superintendent of locomotive building department. Other machinery than locomotives is built at these shops and the capacity is not due alone to the locomotive work: The "old shop" is 260x36 feet, 3 stories high; "second shop" 260x40 feet, 3 stories high; foundry 120x80 feet; boiler shop 200x40 feet; tank shop 200x25 feet; forge shop 200x36 feet; paint shop 84x40 feet; store room and setting up shop 250x40 feet, half two stories and half one story. The first engine was built in 1849. About 200 engines have been built to date. Can turn out 5 engines a month with the usual force of 500 men. Shop and tools cost \$300,000.00

Manchester Locomotive Works, Manchester, New Hampshire. John Appelton Burnham, President, Boston, Mass. O. W. Bayley, Agent and Superintendent at Manchester; William G. Means, Manchester is Treasurer and the principal foremen are Aretus Blood and J. M. Stone. First locomotive built in

1855. Capital \$300,000.00. Main shop is 150x72 feet; forge and boiler shop 150x36 feet, with other buildings. Capacity 3 engines a month and employ 200 hands.

Lowell Machine Shop, Lowell, Massachusetts. J. T. Stevenson, No. 5 Tremont St., Boston, Mass., Treasurer; Wm. A. Burke, Agent at Lowell. Stephen F. Gates, Superintendent of locomotive building department. The Lowell Machine Shop has for many years turned out a great amount of machinery and has built over one hundred locomotives to date. At present it is doing very little locomotive work.

Lawrence Machine Shop, Lawrence, Massachusetts. J. H. W. Page, No. 14 Kilby St., Boston, Treasurer; Gordon McKay, Agent, Lawrence, N. S. Bean, Superintendent of locomotive department. These works have built a large number of locomotives, besides a large amount of machinery, and are now turning out some very handsome machines.

Boston Locomotive Works, Boston, Massachusetts. Holmes Hinkley, President, Daniel F. Child, Treasurer. Mr. Hinkley also is General Superintendent of the works. These works were established in 1840. The principal shop is 430x80 feet, two stories; besides a range for boiler, blacksmith shop and foundry 400x65 feet. There are also numerous other buildings. The whole establishment covers over four acres. These works usually employ 400 men. They have turned out about 500 engines and can conveniently build seven a month.

Union Works, Boston, Mass., formerly operated by Seth Wilmarth no longer are in operation.

Globe Works, Boston, Mass., John Souther & Co., at present are not engaged in locomotive building.

Taunton Locomotive Manufacturing Co., Taunton, Mass. Incorporated in 1847. Capital \$125,000.00. Wm. A. Crocker, President, Taunton; W. W. Fairbanks, Agent and Superintendent. Foreman of finishing, N. A. Vedder; Foreman of setting-up, William Jackson. The finishing shop is 100x50 feet, two stories high; setting-up shop is 200x55, 16 feet high; large boiler and blacksmith shop and large foundry. Employ 300 men and turn out 3 to 4 engines a month. The engines built here have large boilers and steam pipes, good travel of valve, and are otherwise proportioned for smart running. These engines have generally been very loose jointed, going out from the builders with as much play in all the bearings as other

makers' engines would have after two months wear. This one thing has helped the Taunton engines in acquiring a reputation for smartness and sometimes at the expense of durability. About 200 engines built to date.

William Mason & Co., Taunton, Mass. The locomotive building of this firm is a branch of their large machine works. They produce a very handsome and well proportioned machine but to date have not built over 30. The first engine was built in 1853.

Blanchard & Kimball, Springfield, Massachusetts. This plant occupies a very complete and capacious works near the common depot of the Western, Connecticut River and Hartford railroads. The engines of the works are highly spoken of and the capacity of the plant is about two a month. Description of the works is lacking.

New York Locomotive Works, Jersey City, New Jersey. Commenced in 1853. Breese, Kneeland & Co., 49 William St., New York, Proprietors. E. P. Gould, Superintendent, Jersey City. These works can turn out two or more engines a month and build a very modern and thorough class of work. They have built many engines for the Hudson River railroad and for roads in the west. Those on the Hudson River have been pronounced the best, as a class, of any on the road.

Rogers, Ketchum & Grosvenor, Paterson, New Jersey. New York office at 74 Broadway. Managing partner, Thomas Rogers. These works have been established many years and have turned out several hundred locomotives. The works employ about 800 hands and turn out nine engines, with other work, a month. Mr. Rogers has done more than any man for the improvement of style, workmanship and proportion of American engines, having led almost every practical improvement since 1847. Prior to this time, the Philadelphia builders had done the most for the locomotive.

New Jersey Locomotive & Machine Co., Paterson, New Jersey. James Jackson, President; Vincent Blackburn, Superintendent. These works are quite large and capable of turning out three engines a month. They employ about 350 men. This company has built more wide gauge engines ($5\frac{1}{2}$ and 6 feet) than any other concern in the country. The New York & Erie road has been largely equipped from these works, also the Buffalo & New York City, Corning & New York and to a less de-

gree the Delaware, Lackawanna & Western, Ohio & Mississippi and the Ontario, Simcoe & Huron, the Grand Trunk; all broad gauge roads. At present these works are engaged on some very heavy coal engines for the Delaware, Lackawanna & Western.

Danforth, Cooke & Co., Paterson, New Jersey. The locomotive works of this firm are a branch of the extensive general machine works of the same proprietors. The locomotive works alone without the foundry, (which is common to the entire works) employ two hundred hands and can turn out thirty engines a year. Mr. John Cooke, the managing partner in the locomotive works, has the reputation of being one of the best mechanics and mechanical engineers in the country. For several years he was one of the principal foremen of Messrs. Rogers, Ketchum & Grosvenor. Danforth, Cooke & Co. have built a large amount of work for many first class roads, and have a reputation given by engines now running in every section of the country, excepting New England.

William Swinburne, Paterson, New Jersey. These works can turn out from 2 to 3 engines a month and many engines have been sent to the Buffalo & Corning, Michigan Southern and Chicago & Mississippi roads.

VanCleave, McKean, Dripps & Co., Trenton, New Jersey. No information has been located relative to these works.

Norris Locomotive Works, Philadelphia, Pennsylvania. Richard Norris & Son, Proprietors. Established in 1832. These are the largest locomotive works in the world. Up to the present time they have turned out about 800 locomotives, about 125 of which have gone to Europe. These works were originally established by Wm. Norris and Col. Stephen H. Long. The present works are as follows: Setting up shop 180x130, 2½ stories, with a court 30 feet wide extending through the center. The finishing shops are in the shape of an L, 166x153 feet on the two outward sides, and the greater portion three stories high. Principal blacksmith shop is 153x116 feet with 46 fires and three hammers. The steam hammer shop is 104x80 feet with two steam hammers and nine fires. The truck, tender and boiler shops, in one building, 178x100 feet with pattern shop above. Foundry and adjoining buildings 70x103 feet. There is also a large building 200x254 feet which contains additional smith shop, stables, shed, etc. The works can complete 12

engines a month and give employment from 600 to 1000 hands.

M. W. Baldwin & Co., Philadelphia, Pennsylvania. Mr Baldwin is the oldest established locomotive builder in the United States. He commenced in 1833 and has built over 600 engines. The works are 400 feet long on each of two parallel streets and 200 feet in width between the same streets. Most of the buildings are three stories high. They employ between 500 and 600 men and turn out from 60 to 70 engines a year. Their engines are used largely on the Southern roads and on roads in the State of Pennsylvania. They are found, however, in nearly every part of the country. They have built a large number of successful anthracite coal burning locomotives and have many orders on hand for both kinds of engines. The managing partner, Mr. Mathew Baird, has very much improved the style of locomotives built at this establishment, his main feature is their strength and solidity of construction.

Lancaster Locomotive Works, Lancaster, Pennsylvania. James Black, President; John Brandt, Senior Superintendent. These works started in the spring of 1854 and have averaged about two locomotives a month since. Mr. Brandt is a machinist of very long and practical experience having been formerly Superintendent of Motive Power on the Columbia & Philadelphia and on the New York & Erie roads, more lately Superintendent of the New Jersey Locomotive & Machine Co. His pattern of engines is durable, effective and popular.

Newcastle Manufacturing Co., Newcastle, Delaware. Andrew C. Grey, President. These works have built locomotives for many years although not in large numbers. They have many engines on the Philadelphia, Wilmington & Baltimore, Seaboard & Roanoke and other roads, all of which have proved very economical for repairs. No data on the extent or capacity of these works.

Ross Winans, Baltimore, Maryland. Established 1841. He has built a very large number of coal engines which have performed very well. The Baltimore & Ohio and the Reading railroads are largely equipped with his machines. They are of plain finish and simple construction. The capacity of the plant is not known, but in character of tools and arrangements they are considered to be the best laid out of any in the country. All the buildings are under one roof and communicate with each

other. The tools are especially adapted for performing as much of the work by power as is possible.

A. & W. Denmead & Son, Baltimore, Maryland. No data relative to these builders.

Murray & Hazelhurst, Baltimore, Maryland. No data relative to these builders.

Virginia Locomotive & Car Manufacturing Co., Alexandria, Virginia. Thatcher Perkins, President; Richard C. Smith, Treasurer. Messrs. Smith & Perkins commenced building locomotives in 1851. The principal shop is 130x35 feet, 3 stories high; setting-up shop, 60x81 feet; blacksmith shop 100x36 feet; car shop 150x40 feet; boiler shop 150x40 feet; foundry 100x60 feet. They employ from 200 to 225 men and can turn out from 30 to 35 engines a year. These works have 177 feet front on the Potomac River with 20 feet depth of water alongside. These works have built very heavy patterns of bituminous coal burning engines and are used principally on the Pennsylvania Central, Central Ohio and Baltimore & Ohio roads.

Tredegar Engine Works, Richmond, Virginia. Anderson, Delaney & Co., Proprietors. These are large and well laid out works, enlarged and fitted for locomotive building in 1852. The principal shop is 150x50 feet and three stories high. There is also another large machine shop, besides large boiler and blacksmith shops and foundry. Much other work is done in addition to locomotives, and the works employ about 500 hands, all under the supervision of Mr. Mathew Delaney. A large number of engines have been built for the southern roads and they have now and are working on an order of twenty engines for the Memphis & Charleston R. R.

Burr & Ettinger, Richmond, Virginia. Several engines have been built here but very little work is done at present.

Talbot & Brother, Richmond, Virginia. This concern formerly built locomotives but is now engaged on stationary, saw mill and other types of engines.

Appomattox Locomotive Works and Uriah Wells, Petersburg, Virginia. No data relative to either of these establishments.

Schenectady Locomotive Works, Schenectady, New York. John Ellis President; Walter McQueen, Superintendent. Originally established in 1848, and bought by the present company in

1851. The principal shop is 250x45 feet, two stories, with setting-up shed adjoining and 125x25 feet; also another setting-up shop 75x35 feet. The boiler shop is 100 feet square; two blacksmith shops 150x45 and 80x60 feet. The works have a capacity of 6 engines a month and when at full capacity employ about 600 men.

Buffalo Steam Engine Works, Buffalo, New York. Levi Allen, President; Edward H. Rees, Superintendent. These works have only recently commenced the building of locomotives.

Cuyahoga Steam Furnace Co., Cleveland, Ohio. E. B. Sterling, President; Mr. Rogers, Superintendent. These works have been building locomotives for the past five years. Their engines have proved very durable and efficient.

H. & F. Blandy, Zanesville, Ohio. This firm has carried on a machine business for 18 years and has built locomotives since 1851. Their shops are: finishing shop 202x33 feet, three stories high; foundry 72x70 feet; setting-up shop 20x80 feet, forge shop 100x40 feet; boiler shop 50x40 feet, and other buildings. These works have turned out about 25 engines of first class construction. Their engines are spoken of very favorably by the Master Mechanics on the roads in Ohio.

Niles & Co., Cincinnati, Ohio. Locomotive building is only a branch of this large plant. They have turned out over forty engines in one year and are employing about 400 men.

Moore & Richardson, Cincinnati, Ohio. This firm is the successor to Anthony Harkness & Son and had built locomotives for only four or five years. They are prepared to build from 18 to 20 engines a year.

Covington Locomotive Works, Covington, Kentucky. Not building locomotives at present. Sometimes called Cowles, Sickles & Co.

Aurora Locomotive Works, Aurora, Indiana. Sometimes called C. A. Olmstead & Co. Not building locomotives at present.

Kentucky Locomotive Works, Louisville, Kentucky. Sometimes called Olmstead, Tenneys & Peck. Not building locomotives at present.

Nashville Manufacturing Co., Nashville, Tennessee. No longer building locomotives.

C. Cooper & Co., Mt. Vernon, Ohio. Not building locomotives at present.

Detroit Locomotive Works, Detroit, Michigan. This firm was the successor to Messrs. DeGraffe & Kendrick. They commenced building locomotives in 1855. Buildings fill a city square, employ 300 men and capitalized at \$250,000.00. Build largely of work other than locomotives.

H. H. Scoville & Son and the Chicago Locomotive Works, Chicago, Illinois into which Messrs. Scoville's works were merged are not doing anything at present.

Menomonee Locomotive Works, Milwaukee, Wisconsin. Mr. William Romans, Engineer. These works have built 13 engines which are said to be of first class capacity and construction.

Palm, Robertson & Co., St. Louis, Missouri. This firm has built several engines for the Pacific railroads and also for the west end of the Ohio & Mississippi Railroad.

This list is complete as near as I can find out for the year 1855 and should make a valuable check list for our members and readers. In each succeeding bulletin as much of the history as can be obtained will be brought out of the various locomotive builders plants, many not included on this list as they were established later than 1855. The Society will certainly appreciate the assistance from any of our members who can add materially to this list or plants not mentioned herewith.

Some Railroad History of The Province of New Brunswick.

BY C. WARREN ANDERSON.

One of the first projects of its kind in British North America was the proposal in 1827 to build a railroad from St. Andrews, in New Brunswick to Quebec on the St. Lawrence River, that would bring the trade of that River to the Atlantic Coast in a single day. The people of St. Andrews formed an association, parties explored the country for the proposed route and in 1836 a charter was granted by the New Brunswick Legislature to a company known as the St. Andrews and Quebec Railway Company. The British Government granted the new company \$50,000.00 for a survey which began on the 23rd of July 1836, but the United States claimed some of the land through which

the railroad was to run, so the British Government gave orders to stop the survey until the boundary line was fixed.

The Ashburton Treaty gave to Maine the country through which the line was to reach Quebec, the road was afterwards completed as far as Richmond in Carleton County, New Brunswick, but the original plans were never carried out.

In 1850 a great railroad convention was held at Portland, Maine, at which delegates from New Brunswick and Nova Scotia were present. A proposal was made to build a line from Portland to Halifax, which was strongly favored by the New Brunswick delegates. However nothing came of it, but to arouse a great interest in the building of railways.

On September the 29th 1852, the contract for the building of the line of railway from St. John to Amherst and also from St. John to the American frontier was signed at St. John at 12 o'clock noon of that day and the volunteer artillery of the city, under command of Major Foster, fired a salute from Chipman's Hill.

The first sod of the line of railway between St. John and Shediae was turned on the 14th of September 1853. It was a day of great rejoicing in St. John. Early in the day the artillery company fired a salute and by 10 o'clock the streets were crowded with people. Half an hour later one of the old time trade's processions began to move through the city, in all nearly 5,000 persons; the procession was nearly a mile in length.

The Artillery fired a salute when the first sod was raised and deposited in an elegant wheelbarrow, by Lady Head, wife of the Lieutenant Governor of the Province.

The work was undertaken by a company which became bankrupt and the New Brunswick Government finished the building of the road.

Work on the road progressed very slowly and nearly three years after the first sod was turned the railroad was only about four miles in length.

On March 17th, 1857, the first locomotive on the St. John to Shediae line was put in motion, and witnessed by a large gathering of people. At 3 o'clock the train, consisting of engine, tender, and three cars, left the station at Mill Street and proceeded up the Marsh about three and a half miles, where the rails terminated, accomplishing the distance in about twelve minutes.

The "Leader," a St. John tri-weekly paper, announced in the summer of 1857, that W. H. Scovil, Chairman of the Board which had charge of the railway, advertised:

"That on and after the 20th of July a passenger train will leave the Station at Mill Street, Portland Bridge, daily, Sunday excepted, for the head of the Marsh at 9 o'clock A. M. and 12 o'clock noon and at 4 and 6 P. M. calling at the following places: Garden Street near the Valley Church; Gilbert's Lane, Drury's Lane, Ashburn Lane, the Three Mile House and Donovan's Lane. Single passage six pence or fifty tickets for twenty shillings."



N. B. & P. I. #1.

St. John and Portland were separate cities at that time, the Portland Bridge was part of what is now Mill Street, in front of the present Union Depot. The mill pond over which the Bridge crossed was filled in by the debris from the St. John Fire of June 20th 1877 and the balance from the Rothesay sand pits.

The fares have not changed much in these years, the price of tickets to Cold Brook, which is the name of the station near the Three Mile House, at the time of writing (1923) is 10 cts. single fare or \$3.80 for fifty trip ticket.

In 1858 the railroad extended as far as Kennebecasis Station (now called Rothesay). During the summer of the next

year it was opened to Ossekeag (now Hampton) and in the fall of the same year to Sussex.

On July 18th 1860, the European and North American Railroad, as it was known then, was opened for traffic from St. John to Point du Chene and the day was the occasion of great celebration. During that year the Prince of Wales (the late King Edward VII) visited the Province and was carried over the road to Rothesay, named after one of his titles (Earl of Rothesay), nine miles from St. John where he embarked on the steamer "Forest Queen" for Fredericton.

The equipment at this time was very meagre. In 1861 the entire rolling stock of the road consisted of 14 Locomotives, 18 passenger cars, 4 express, mail and baggage cars, 63 freight cars and 105 platform cars.

The time-table was a very simple affair, a train going to Point du Chene in the morning, returning to St. John in the evening and a train which went to Sussex in the evening and returned to St. John next morning. This train is still running and is known as the "Sussex Train," in all probability the oldest train on this section of the road. The salaries of the railway staff were by no means lucrative. Alexander Davidson, the terminal agent at Point du Chene, received \$600.00 per annum and Caleb Olive, the agent at Sussex \$500.00. The other ten station masters were graded down to \$250.00, which was the lowest and was the sum received by J. E. B. McCready, the station agent at Penobsquis.

The train-men at this period of railroad history did not have a very cheerful life. The Brakeman had to clean the cars inside and out at the end of each trip, wash the wheels (which were painted red), fill up the wood-boxes in each passenger car, keep the stoves going, help wood up the engines, apply the brakes by hand, run the alarm line over the tops of the cars and when storm stayed, had to shovel snow into the tender to melt, to keep the engine alive. Extras were not provided with vans and the conductor had only one man, who had to ride on the rear car with a lamp or flag in his hand. Often, especially in the fall of the year, he had to lay down near the brake with his arm over his head as a wind shield. The box cars were not provided with end or side ladders and when it was necessary to make a coupling, or pull a pin, he would lower himself from the

top of the car on to the draw-bar and when the pin was pulled, he would catch the roof of the car with his hands and draw himself up. The wages of a brakeman were at that time \$1.25 per day or \$35.00 per month; no allowance for extra trips or detention.

The enginemen seem to have had their troubles too, the engine burned wood as fuel and frequent stops had to be made to replenish the tender, the brakeman and sometimes the passengers helping the fireman. Pumps were used to feed water into the boiler and quite often the engine had to be detached from the train and run up and down the track to pump water into the boiler. There were no lubricators in the cab, but on each steam-chest there were fitted what was known as tallow cups to lubricate the valves and cylinders. At a later period pipes were extended from the cab to the tallow cups and the work was made easier. The pay of the fireman was about the same as that of a brakeman.

Among the pioneers of the railway was Mr. David A. Sinclair, whose death occurred at his home in St. John only a few weeks ago. He was intimately connected with its progress in the Province and was highly respected and very popular with his associates. When twenty years of age he entered the employ of the then European and North American Railway, and for fifty years and six months he remained in the service. For seventeen years he was engineer and for thirty-three years he was foreman of the Mechanical Department at St. John. He retired from active service October 31st, 1909.

His was a unique experience in railroading, as when he first entered the service of the road the rails extended only five miles from St. John. He was the first engineer to cross the Hammond River Bridge and he helped ballast the road to Moncton when it was being built.

In 1866 the line from St. John to Point du Chene was 108 miles in length, there were 14 locomotives, six of them built by Fleming and Humbert of St. John, twelve first and six second class cars.

Through the kindness of Dr. Milner of the Dominion Archives Office, St. John, the writer is able to present the following list of the first 18 locomotives belonging to the road:

"St. John," Hinkley Locomotive Co., Boston.

"Kennebecasis," Hinkley Locomotive Co., Boston.

- "Petiteodiae," Fleming & Humbert, St. John.
"Anaganee," Fleming & Humbert, St. John.
"Loostauk," Fleming & Humbert, St. John.
"Seadoue," Fleming & Humbert, St. John.
"Herenules," Hinkley Locomotive Co., Boston.
"Sampson," Hinkley Locomotive Co., Boston.
"Ossekeag," Fleming & Humbert, St. John.
"Norton," Fleming & Humbert, St. John.
"Apohaqui," Fleming & Humbert, St. John.
"Sussex," Fleming & Humbert, St. John.
"Prince of Wales," Fleming & Humbert, St. John.
"Prince Alfred," Fleming & Humbert, St. John.
"Robert Jardine," Fleming & Humbert, St. John.
"Bear," Fleming & Humbert, St. John.
"Stag," Portland Locomotive Works, Portland.
"New Brunswick," Portland Locomotive Works, Portland.

The dimensions of these engines are not known, but the Ossekeag No. 9, had cylinders 15x22, driving wheels 66 inches in diameter, diameter of boiler 48 inches, and the engine weighed 28 tons. This data was taken from the original drawing of this locomotive, and which was dated 1850. These machines were all woodburners of the 4-4-0 wheel arrangement, and no doubt did not differ very much in either size or design.

Fleming & Sons of St. John began building locomotives about 1850 and about this time car works were also started, known as the Harris Car Works. Fleming's still carry on foundry business, but the locomotive end of it has more or less been dropped. Harris Car Works have long ceased to exist, having been bought out by Rhodes, Surry Company of Amherst. Their place of business was on Mill Street, to the left of the Union Depot, or where the old Grain Elevator was prior to 1915, when it was destroyed by fire.

The Road to Shediae was opened on Dominion Day, July 1st, 1867. The first Stations were located at the following places: (1) The "Nine Mile House" (Rothesay); (2) Hammond River (Now Nauwigewauk); (3) Hampton (formerly Ossekeag); (4) The Fingerboard (Norton); (5) Sussex Vale; (6) Petitieodiae; (7) Pitsfield (Salisbury) and two between "The Bend" (Moneton) and Nova Scotia.

The extension of the railway west from St. John was begun in 1865 and known as "The Western Extension," the terminal was in Carleton, on the west side of the Harbour of St. John. The road was opened as far as "City Camp," now McAdam Junction in 1869. Branches to Fredericton, St. Stephen, Woodstock and Houlton were built at a later date. The old Cantilever Bridge over the Riversible Falls at St. John was built about 1887 and the railway bridge at Fredericton somewhat later. The short line to Montreal was also a later development. The linking up of Vanceboro of our "Western Extention" with the great railroad systems of the United States and Montreal were important events.

We now come to the Intercolonial Railway, which to the writer's mind was not unlike the Old Colony of the States, as the Old Colony absorbed smaller roads and was in itself absorbed, so with the old Intercolonial, it being now a part of the Canadian National System.

The question of the location of the Intercolonial caused much controversy. Three routes were proposed; one following the Gulf shore of New Brunswick to Bay Chaleur, thence through the Metapedia Valley to Metis on the St. Lawrence River, one through the centre of New Brunswick; and one known as the "Frontier Route" through the St. John River Valley and the Pemiscouta Valley to Quebec. This later route was strongly favored by the people of St. John and St. John Valley communities.

To insure the construction of the railway the Imperial Government offered to guarantee bonds to the extent of £3,000,000, but the offer was conditional on the adoption of the Chaleur Bay route, of which years before, a survey had been made at the direction of Mr. Gladstone, then Colonial Secretary. In a despatch to Governor General Viscount Monck, the Duke of Buckingham wrote: "The communication which this line affords with the Gulf of St. Lawrence at various points, and its remoteness from the American Frontier, are conclusive considerations in its favor and there can be no doubt that it is the only one which provides for the national objects involved in the undertaking."

After an agitation lasting over forty-one years and twenty-two years after the first survey was ordered by the Imperial

Authorities, the Canadian Government adopted the Bay Chaleur route by the 68th of the resolutions forming the basis of Confederation 1867 which read: "That the general government shall secure without delay the completion of the Intercolonial Railway from River duLoup, Quebec, through New Brunswick to Truro, Nova Scotia" and the imperial guarantee was immediately made available. Of this decision a publication issued by the New Brunswick Government said: "The Bay Chaleur route was not the one which would have been chosen for purely commercial reasons. It was a military route from which the commercial features have been practically eliminated."

The New Brunswick Government of course had been operating the road between St. John, New Brunswick and Amherst, Nova Scotia and the Nova Scotia Government a line between Halifax and Truro.

In 1872 the line between Truro and Moncton was completed, giving Halifax connection with St. John. A passenger on the first train, who still survives, tells of the occasion, as follows: "On Monday, November 11, 1872, rail communication was opened between Halifax and St. John, which was the consummation of part of the terms of Confederation respecting the Intercolonial Railway.

"I recall the morning quite vividly, for I, then a small boy, was a passenger by that first train, from Windsor Junction to Debert, and a beautiful autumn morning it was. The train left Halifax at 7 A. M. for St. John, and at the same time a train left St. John for Halifax. The Halifax train for St. John pulled out of the old Nova Scotia Railway train shed at Richmond and it was a good looking train for those days. If I mistake not, it consisted of locomotive and four cars, all newly painted."

The locomotive carried small Union Jacks on either side of the headlight. The engine was one of the Scotch Nelsons, that had for some time been in use on the Nova Scotia Railway."

"I think I am quite right in saying that the cars were built in the shops at Richmond. The exterior of the cars was painted a darkish yellow. The interior of the first class cars was handsomely decorated and the seats were upholstered in dark red plush. The cars were link and pin couplers, and hand brakes. The heating was done by wood stoves.

"Neither locomotive nor cars were more than half as large

as those in use on the road at this time. The passenger list was large, there being many officials aboard."

The late Mr. Jas. Millican was the conductor of the first night train between those cities and continued running on the night trains until 1892, when trains began to run between Halifax and Montreal and he was put in charge of those trains.

In 1876 the line from Monetton to River du Loup was opened, giving the maritime Province connection with the Grand Trunk line running to River du Loup.

When these connections were made the Intercolonial had cost the people of Canada \$26,000,000 exclusive of what Nova Scotia Government had spent in building the line from Halifax to Truro, or what the New Brunswick Government had expended in building the one hundred odd miles between St. John and Shediae.

In the year 1877, we find the road employed about 4,462 persons and the gross earnings were \$1,272,506.00.

The road had been extended to Levis, opposite Quebec City and Mulgrave, Nova Scotia, giving a mileage of 1039 by 1880 and five years later we find it extended to the Sydneys in Cape Breton, trains crossing the Straits of Canso by car ferry.

In 1897 the gross earning of the road was \$3,019,471.00 and the persons employed about 5,600. The next year the Intercolonial was extended to Montreal.

The total length of the road June 30th 1906 was 1457 miles. The railway shops and general offices were situated at Monetton, New Brunswick. The equipment consisted of 347 locomotives; 430 passenger cars; 10,820 freight cars and 128 tool cars, snow ploughs, etc.

In 1916 the Intercolonial, the National Transcontinental, the New Brunswick and Prince Edward Island, the Hampton and the St. Martins, Prince Edward Island and the St. John and Quebec Railways, all came under one head to be known as the Canadian Government Railways, having 445 locomotives, 15,-571 cars in service and employing about 19,791 persons.

In September 1918 the management of the Canadian Government Railways was placed under the control of the board of directors which the Canadian Government appointed for the Canadian Northern Company. This was done after the completion of the arbitration proceedings for the acquisition of the

Canadian Northern Railways' capital stock. The Government owned the roads to be known as the Canadian National Railways.

The engineering problems that troubled the pioneers of railway construction have seemed like child's play to their successors. But there are still living those who can recall the day when the rock cuttings near Brookville were deemed a most formidable problem and little Lawlor's Lake was spoken of as "the bottomless pit" and pessimists declared it would never be crossed by a railway on which it would be safe to risk the lives of passengers.

To-day there is a lime-kiln situated at one end of the lake and the lake is fast being filled in by refuse from the kiln and stone quarry.

There is a lot of unwritten history about the railways of New Brunswick, some of it of very great interest. To-day it is said that the province has more miles of railway per head of its people than any other country in the world.

The Early Dawn of Railways.

BY G. W. BISHOP.

To many people, the "origin of railways" implies that glorious period associated with the names of George Stephenson and other famous pioneers, when the iron road leaped into prominence as a factor in civilized life. But, like all really great ideas, the railway, in varying form, stretches far back in time. A study of the subject soon reveals the hopelessness of trying to find an actual starting point.

The railway is an improved tramway, and the tramway is a specialized roadway. So far, the line of evolution seems clear. But there is an important distinction which should be observed. At some point in the history of transport it occurred to someone that the hard, smooth surface of a road could be economically concentrated into two narrow, parallel strips of paving beneath the wheels of chariots or other ancient vehicles. Immediately this was done, the original "tramroad," proud ancestor of railways, was seen; and the man to whom this world-shaking idea had come was the real primeval "Inventor of Railways." Who was he?

The Roman stone-ways, or lines of stone laid upon Roman roads, attract one's attention. It is not surprising that the immense engineering genius of the Romans should have led them towards some kind of "tramway." The remarkable likeness between Roman road-routes in Britain, and the routes of railways that followed, has been pointed out. There is more than one English railway station named after a Roman road near by. The two systems, in fact, seem curiously linked.

Our standard gauge is involved, also. Why was 4 ft. 8½ in. chosen? Authorities will say it came from old colliery carts and wagons, adapted to run upon flange-plates and tram tracks. Why should the carts have that gauge? Well, it may have been convenience; or, once more, a ghostly Roman influence may have been at work! Roman chariot-ways in Italy were about 4 ft. 10 in. gauge; chariots made for these were sent over to Britain; consequently, Roman roads in the latter country would probably follow the prevailing standard. Thus, a historic "standard gauge" would be set up, to be handed down to colliery wagons, and so to railways.

If it could be established that Roman engineers did invent stone-ways, and a "standard gauge," the discovery would be "antique" enough to please most students, and a romantic chapter could be added to Roman history. Therefore I was considerably astonished to find the Great Western Railway Magazine (England) stating that, according to authentic records found in the ruins of Babylon, King Nimrod, in 200 B. C., caused his stone masons to build roads of two continuous lines of stone, 2 to 6 feet long, 1 foot wide, 6 inches thick, and 4 feet apart, or about 5 feet center to center.

This is rather staggering! Imagine this Babylonian monarch calmly reflecting upon his trackway and its gauge!

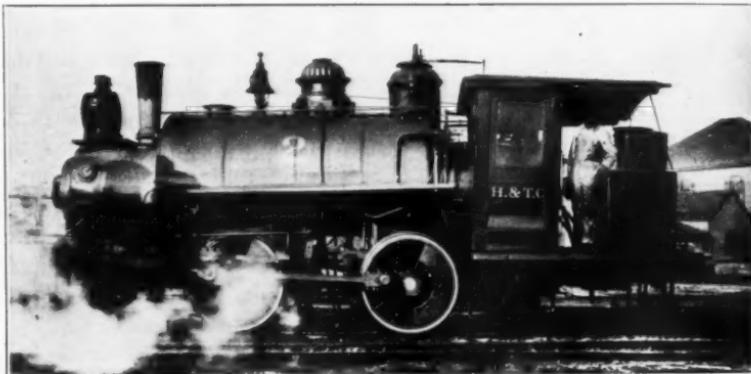
Strange to think of railways coming, like other great movements, from the East, and traveling West. Strange, too, that a modern London and North-Western (England) engine should be named "Babylon."

I have tried to find further details of these Babylonian records, but without success. If any student of antiquities who may read this can add any information, I shall be very pleased. Surely it is a fascinating field of research, suggesting that the essential idea of a railway had a very "early dawn" indeed.

Early Engineering On The Houston and Texas Central Railroad.

HOWARD G. HILL.

According to Poor's Manual of Railroads, 1888, the Houston and Texas Central Railroad Company was chartered on March 11, 1848. The main line of the road, extending from Houston, Texas, to Red River City, Texas, a distance of 344.8 miles, was completed on March 11, 1873; the Austin Branch, Hempstead to Austin, Texas, 118.75 miles, was opened in 1871; and the Ross Branch, Bremond to Ross, Texas, was opened in 1878. The Company had a land grant from the State of Texas covering 16 sections, or 10,240 acres, for every mile of road constructed and equipped.



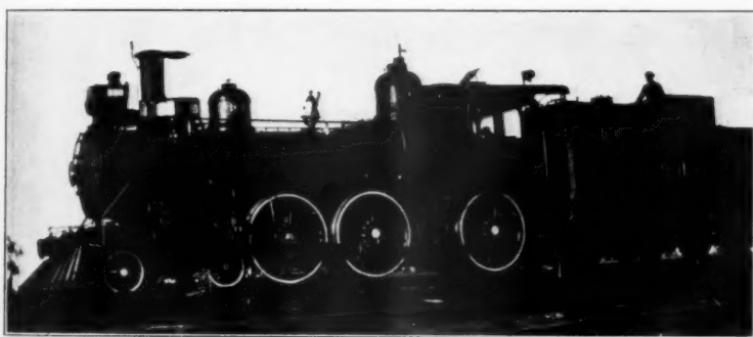
H. & T. C. # 2, Rogers 1869.

The old Texas Central Railway Company, incorporated May 28, 1879, and extending from Ross to Albany, Texas, was operated in connection with the Houston and Texas Central about 1885, but the road was later acquired by what is now the Missouri-Kansas-Texas System. The main line Mileage of this road was 176.6.

In 1888, the rolling stock of the Houston and Texas Central consisted of 89 locomotives, 72 passenger train cars and 1751 freight cars. The accompanying illustrations show some of the

early locomotives and the drawings give interesting data on engineering details of the old rolling stock.

In Fig. 1 is shown the oldest locomotive in service on the Southern Pacific Lines (Texas and Louisiana), of which the H. T. C. is now a part. This engine was built in 1869 by the Rogers Locomotive Works, and is truly a veteran of the rail. She has been nick-named "Old Buff." In the re-assignment of numbers in 1913, she was given number 2. She was previously Number 1. Two interesting details of her original construction remain since she was rebuilt a few years ago, namely, the corrugated cover and octagonal base of the sand dome, and the elaborate bell bracket with curved crank. The slightly inclined cylinders, 15" diam. by 22" stroke, are also a noticeable feature. It appears from data at hand that she was originally built with

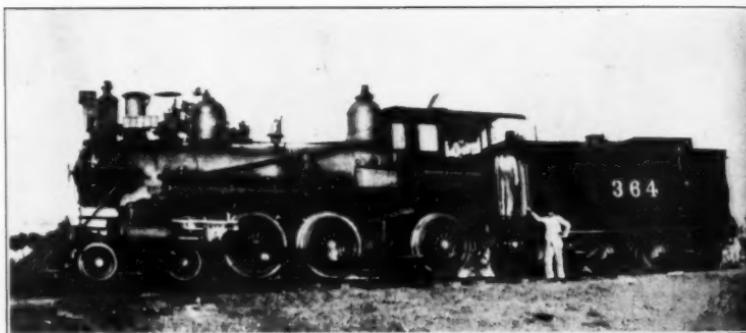


H. & T. C. #300. Schenectady, 1875.

a truck at the rear end, but at present the total weight of about 60,000 pounds is carried on the four 50" diam. drivers, whose wheel-base is 7' 0". The tractive effort is 10,940 pounds. She was converted from coal to oil several years ago and is used as a shop switch engine at the H. & T. C. Roundhouse at Houston, Texas, where all Southern Pacific passenger power entering that city is turned. Her builder's number is unknown.

No. 300, shown in Fig. 2, was built in 1875 by the Schenectady Locomotive Works. With 63" drivers and cylinders 18" by 24", this engine is suitable for passenger service and during the past few years has been hauling passenger trains on the

Fort Worth Branch which leaves the main line of the Central at Ennis, Texas. The weight on drivers is 80,000 lbs.; total weight, 104,600 lbs.; driving wheel-base, 14' 0"; total wheel-base of engine, 23' 6- $\frac{3}{4}$ "; tractive effort, 16,260 lbs. An original detail which has not been eliminated by the many shoppings is the method of supporting the handrails. Horizontal brackets attached to the boiler shell support vertical brass columns through which the handrails are passed. This is not a common sight at the present time. No. 300 is also an oil-burner. It is interesting to note that the driver brakes, which are of the American equalizing type, act only on the main and rear drivers. The firebox extends down between the main and rear driving axles. This locomotive was built for the Southern Pacific R. R. of California and the original number was 2015. She was later



H. & T. C. #364, Cooke, 1889.

assigned to the Central and re-numbered 223. In 1913 her number was changed to 300. Builder's number unknown.

The 364, shown in Fig. 3, is one of ten locomotives built in 1889 by the Cooke Locomotive Works. Although not as old as the 300, this engine is of practically the same design, with 18" by 24" cylinders; 55" drivers; 83,000 lbs. on drivers; total weight of engine 108,000 lbs; driving wheel-base 13' 10-5/8"; total wheel-base of engine 24' 2-5/8"; tractive effort 18,630 lbs. The few of these engines that are still in service have been converted to oil-burners and are used in freight and mixed train service on the short branch lines of the System. Builder's No. 1981.

A drawing of an old Central flat car is of interest. The original tracing, which the writer holds as a valued possession, was made by Mr. C. W. Doering, a draftsman in the Motive Power Department of the Central back in the 70's, and later Chief Draftsman up to about the year 1908. The tracing is dated August 2nd, 1879, and was made at Houston, Texas, under the direction of Mr. James McGee, Master Car Builder. The spring draft gear and link-and-pin couplers are interesting features, and the manner of building up the truck bolsters and arch bars is far from present day practice. The tracing has grown brown with age and the cloth is brittle, but the lines are still clear and distinct.

Two more of Mr. Doering's drawings are of interest. The first shows an "Axe Box for H. & T. C. Freight Cars." The tracing is made with inks of four different colors, a practice seldom seen in Motive Power offices today. Note the manner of closing the end of the box with a loose lid attached to the end of a short length of chain. The drawing was dated at Houston, June 27, 1877.

A very curious type of safety valve is shown, "H. Anderson's Safety Valve" and "Altered Dome Cover for Hinckley and Rogers Engines." The valve was patented October 16, 1866, and the drawing was probably made about the same time, although it is not dated. The features of this valve are the volute springs, the simplicity of the valve proper, and the "cannons," or exhaust pipes, used to carry the steam up when the valves were open. An article is recalled in which some of the famous Eddy "Clocks" were described, mention being made of these cannons as one of the prominent features.

It is the writer's belief that there are many old drawings, laid away in obsolete files, which would prove very interesting if brought to light and published in the Society's Bulletins. It is hoped that more of them will appear from time to time, and that they will thus be preserved for the information and interest of future generations. Those Members who are connected with the Mechanical Departments of some of the older Railroad Companies have a wonderful opportunity to assist in this way in prompting the aims of the Society.

Port Arthur, Texas,
June 7, 1923.

How "Locomotion No. I" Went to Wembley.

By G. W. BISHOP.

Most students of railway history will be aware that the famous old Stockton and Darlington engine "Locomotion No. 1" had for many years reposed upon a pedestal at the North Eastern (now London & North Eastern station at Darlington (Bank Top). In that prominent position she was an object of interest to many, and probably many considered that the veteran's travels were over for good.

The decision to exhibit this relic at Wembley, alongside a modern Pacific was therefore an event. The locomotives at the Exhibition have already been much described, but I do not



Stockton & Darlington R. R. "Locomotion No. 1"—1825.

think the actual mode by which this particular engine made the trip to London has been touched upon. The journey is of considerable historic interest, and our thanks are due to the London and North Eastern Railway Company for kindly supplying the following details:

In order to avoid stripping the gear, with the exception of the chimney, the old engine was loaded upon a special trolley wagon, No. N. E. 8532. This had a low floor level, enabling it to pass the standard load gauge.

The engine was placed on one end of this wagon, with the tender behind, the wheels being securely chocked. Warwick

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Stockton & Darlington Railway. *The Company's* CALLED THE **EXPERIMENT,**

Which commenced Travelling on MONDAY, the 10th of OCTOBER, 1825, will continue to run from Darlington to Stockton, and from Stockton to Darlington every Day. [Sunday's excepted] setting off from the DEPOT at each place, at the times specified as under, (viz.) ---

ON MONDAY,

From Stockton at half-past 7 in the Morning, and will reach Darlington about half past 9; the Coach will set off from the latter place on its return at 3 in the Afternoon, and reach Stockton about 5.

TUESDAY,

From Stockton at 3 in the Afternoon, and will reach Darlington about 5.

On the following Days, viz., ---

WEDNESDAY, THURSDAY & FRIDAY,

From Darlington at half-past 7 in the Morning, and will reach Stockton about half past 9; the Coach will set off from the latter place on its return at 3 in the Afternoon, and reach Darlington about 5.

SATURDAY,

From Darlington at 1 in the Afternoon, and will reach Stockton about 3.

Passengers to pay 1s. each, and will be allowed a Package of not exceeding 14lb. all above that weight to pay at the rate of 2d. per Stone extra. Carriage of small Parcels 3d. each. The Company will not be accountable for Parcels of above £5 Value, unless paid for as such.

Mr. RICHARD PICKERSGILL at his Office in Commercial Street, Darlington; and Mr TULLY at Stockton, will for the present receive all Parcels and Book Passengers.

AN APPLETION PRINTER, DARLINGTON.

The first time-table of the Stockton & Darlington Railway.

chains were passed over the horn stay brackets, and made secure to the ends and sides of the wagon.

The load was conveyed by goods train, on March 11th, 1924, under the personal care of a conductor, the route being via York, Mexborough West, Annesley, Marylebone, and Neasden Junction.

Apparently this is the first occasion of the engine traveling to London, but the following notable dates in her career indicate that her previous wanderings have been extensive, and indeed, have reached across the Atlantic:

1825-1841—Worked on Stockton & Darlington Railway.

1841—Mounted on pedestal at North Road Station, Darlington.

1875—Worked on N. E. R. at Stockton & Darlington Jubilee.

1876—Sent to Philadelphia Exhibition.

1881—Sent to Stephenson Centenary.

1886—Sent to Liverpool Exhibition.

1889—Sent to Paris Exhibition.

1892—Mounted on pedestal at Bank Top Station, Darlington.

1924—Sent to British Empire Exhibition, Wembley, London, as described above.

Man Who Worked On No. 1 Engine.

John Cowley of 18, Belmont Gardens, West Hartlepool, born January 1st, 1842, at Newtownsandes, Co. Kerry. In 1849 went with his parents to live in Durham City. When fourteen he worked as a boy for Messrs. Gibson and Milburn, Contractors for the building of Durham North Road Railway Station. The Contractors had the use of No. 1 Engine to convey stone from Leamside to Durham. No. 1 was at that time used for shunting goods at Darlington when the Stockton and Darlington Railway Company lent it to Messrs. Gibson and Milburn. The Contractors put Cowley, then fourteen years of age, on to fire the engine. No. 1 was, however, found too slow in ascending gradients, (it "puffed" too much, to use Mr. Cowley's own words) and was soon returned to Darlington and the Engine "Washington" used instead.

John Cowley later worked with his father, a boot and shoe

maker, but the work did not agree with him, and he went into the employ of Messrs. Denton & Gray, now Wm. Gray & Co. Ltd., Shipbuilders, West Hartlepool. Subsequently he became a Licensed Victualler, retired from business in 1903, and took some interest in public work, serving six years on the Board of Guardians for the Throston Ward, Hartlepool. After serving 11 years, he retired as a Corporal in the 4th Durham Artillery Volunteers at the end of 1887.

His elder brother, William Cowley, when 19 revisited his birthplace, Newtownsandes, close to Ballylongford, where Lord Kitchener was born, then 8 years of age, and whose mother became interested in the Cowleys and requested the elder Cowley to take her son, who later became Lord Kitchener, walks in the country.

Mr. John Cowley, although in his 83rd year, enjoys average good health, loss of hearing being his only defect. He is of a retiring disposition and much respected.

Recollections Of The New York And Boston Express Line.

By CHARLES A. RICE

Editors Note:—Mr. Charles A. Rice the author of this article started railroading in 1860 in the Boston and Worcester Railroad freight house which at that time covered the entire block between Kneeland, Lincoln, Harvard and Utica Streets in Boston. Harvard St. in those days extended through to South St. His first position was as a delivery clerk and his section was 6, 7 and 8 doors on Utica St.

Mr. Rice served in the Civil War in the 43rd Massachusetts Infantry, and at the close of the war returned to railroading with the Boston, Hartford and Erie and, later with the Boston and Albany running through to New York as a baggage master on the Springfield Line. His last years of active service were spent as a baggage master in the South Station in Boston. He retired from active service in 1921. His long faithful and honorable record is one of which to be proud.

The New York and Boston Express Line was sort of a "Gentleman's Agreement." It was to facilitate the through

travel between Boston and New York via Springfield and Hartford and was formed by the four roads then in service, viz Boston & Worcester, E. B. Phillips, Sup't; Western, Henry Gray, Sup't; Hartford & New Haven, James H. Reed, Sup't; and New York & New Haven, James H. Hoyt, Sup't.

The cars were painted straw color and the passenger cars were lettered A, B, C, etc., instead of being numbered. The headquarters were in Springfield and all changes of cars was made there, except the sleeping cars which were owned and operated by Mr. Hapgood, and changes were made at the Boston end.

The morning train left Boston at 8:30 A. M. and New York at 8:00 A. M., making the run in about 8½ hours, with a stop at Springfield for dinner. The afternoon train left at 2:30 P. M., running time about the same. This train carried a U. S. Mail Agent and had a mail room in the middle of the baggage car. The other train carried the mail in charge of the Baggage Master.

Post Office cars were put on the day train about 1863 or 1864, but not on the "Owl" until some time later. I remember the first trip of the mail car on the day train. Charles Harper was the clerk. It was the first attempt to take the bags from the posts at the stations and the operator neglected to turn the catcher down after taking in the bag. At the first covered bridge the train went over, the catcher hit the bridge truss and was torn off. No more bags were picked up that day greatly to the disappointment of the people who had gathered at every station to see the wonderful performance.

The "Owl" train left Boston at 8:30 P. M. and New York at 8:10 P. M., Sunday at 5:00 P. M. One Hapgood's sleeping car was run on the train and between New York and New Haven a Wagner sleeper was attached which went over the Shore Line, then not so popular as now on account of the two ferries to be crossed, one at Saybrook the other at New London.

I remember an incident which happened when I was on the night run. A gentleman in New York wished to take the Cunard Steamer from Boston which sailed at 8:00 A. M. The Springfield Line had been making rather poor time then, on account of being held at Springfield for the Albany connections. He had his baggage all checked and sleeper reservations, but at the

last minute changed his mind and went over the Shore Line. It so happened that a fog set in that night and the ferry boat at Saybrook was several hours getting across so that the train did not get into Boston until 10 o'clock. We, for a wonder, got in on time.

Mr. Spencer was Superintendent of the line at Springfield and had charge of the drawing room cars when they were added to the day trains. Mr. George A. Morton succeeded him and later he became General Baggage Agent for the New York, New Haven & Hartford R. R.

The New York & New Haven trains were run over the Harlem R. R. tracks from Williams Bridge, about 12 miles, crossing the Harlem River and running down Fourth Ave. to 27th Street. At 42nd Street the engines were taken off and the cars drawn the rest of the way by horses. Four horses were used to haul each car and only one car at a time could be handled around the sharp curve at 27th Street. The New Haven Station and the Harlem Station occupied the entire block between 26th and 27th Streets, 4th and Madison Avenues.

When the "Owl" train was put on, the Adams Express Co. had a car on the train which was run down to White Street. Coming up, the messenger would ride on the platform to 27th Street, jump off and ride the rest of the way to Boston in the baggage car. One night while the express car was waiting at 42nd Street, two men broke the padlock on one of the side doors, entered the car closing the door after them. When the train was near Stamford, they threw out the two safes which were picked up by confederates. The break was not discovered until the train reached New Haven.

The Baggage Master at 42nd Street was Thomas Johnston, with James Searles as assistant. Later Mr. Searles succeeded him.

The engines on the express trains were Nos. 6 and 7, both Danforth engines and 35 a Rogers' engine. These engines put up at New Haven, the one taking the day train down and coming back on the "Owl", the other going down on the "Owl" and coming back on the day train. They made five trips a week.

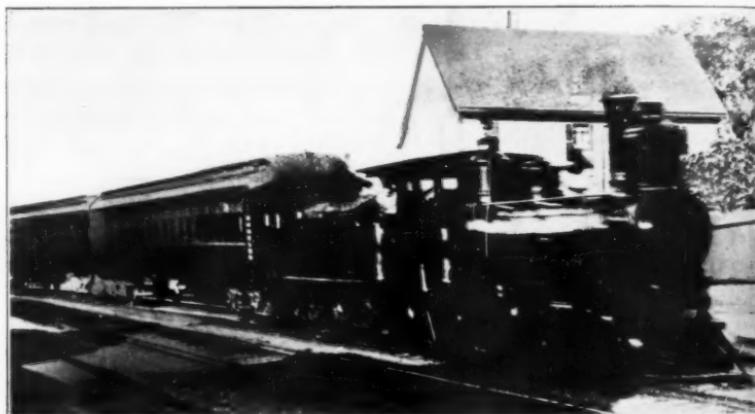
Today the Springfield Line is operated by the N. Y. N. & H. and the Boston & Albany Railroads. Each road furnishes its proportion of cars for the through business.

Old Colony Railroad Motive Power.

BY CHAS. E. FISHER.

While the Old Colony Railroad was not the pioneer road in Massachusetts its motive power has always been a source of interest to those of us who resided in south-eastern Massachusetts and the "Cape". Like other early roads, the locomotives bore names and these names were always associated with the "Old Colony Section" either historically or physically.

The list of locomotives that appeared in my book published in 1919 was not a complete list of the motive power. It was the list of locomotives as owned by the Old Colony at the time it



O. C. R. R. "Atlantic" on the "Dude Train" at 60 m p h.

was leased to the New Haven in 1893. In the last five years more information has come to light and due to the assistance of Mr. Wm. A. Hazelboom and Mr. O. L. Patt, I am able to reproduce a practically complete list of Old Colony power. While there may be a variation between authorities in the dimensions due to the rebuilding of locomotives on the road, it should be understood this list is based on numerical sequence and locomotives that were never assigned a number will be found in a list appended to what follows.

Fortunately for us we find in the Old Colony Railroad Report of 1849 a list of locomotives dated December 1st of that year as follows:

Name	Wheels	Weight	Dia. of Cyl.	Length of Stroke	Miles Run
Dorchester	12	53300	16	20	13703
Plymouth	12	56400	16	20	2373
Kingston	8	36500	14	18	19245
J. Q. Adams	8	41600	15	20	21286
Mayflower	8	44600	15	20	14167
Patuxet	8	34800	12½	20	15597
Abington	8	28500	14	18	19837
Weymouth	8	39500	14	18	27389
Hingham	8	40650	14	18	15260
Quincy	8	36900	12½	20	12410
John Eliot	8	36950	14	18	16916
Gov. Bradford	6	26500	11	20	18995
Gov. Carver	6	26500	11	20	16058
Miles Standish	6	26500	11	20	21844

Comet—A light English engine purchased for \$1000.00 from the Boston & Worcester R. R. and sold in 1852

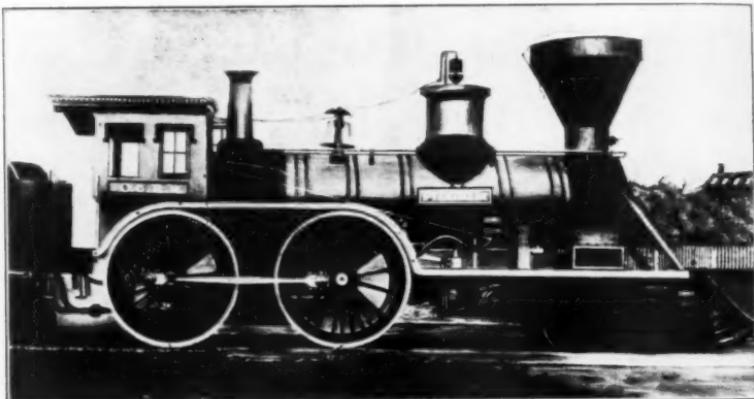
Of the above locomotives, the Gov. Carver was sold in 1852 and the John Eliot was sold in 1854 to the Bangor, Oldtown & Milford R. R. The Dorchester was sold to the Government at the time of the Civil War and the Plymouth was rebuilt. The following description of the Dorchester from the "Boston Courier" Thursday, July 13, 1848 is of interest:

A Re-print from the Springfield Republican.

A Great Steam Horse—"We saw at the Depot on Tuesday morning a very large and beautifully constructed locomotive called the "Dorchester" made for the Old Colony Railroad. It was built at the shops of the Springfield Car and Engine Co. and cost \$9000.00. Its weight is estimated at 22 tons and is the first twelve wheel locomotive of its style of construction that has been made in the United States. The four driving wheels are in the center and are of equal size so that the machine will run as well one way as the other. Its capacity of draft is calculated to be equal to 100 cars with 60 tons burden. It is a grand machine in size and construction and reflects credit on the mechanics of Springfield. This is the first locomotive turned out by the Car and Engine Co."

The following is a list of the Old Colony engines showing the complete engines assigned to the various numbers on the road.

- No. 1 Miles Standish, Hinkley & Drury, 1845, 11x20", 56", 26500.
Merrimac, Hinkley & Drury, 1847, 15x20", 54", 50000.
From Concord R. R.
Providence, Rebuilt by Wm. Mason, 15x20", 66", 60000.
This was also purchased second handed.
No Name, Mason, 1885, 16x24", 54", 69400. Bogie type engine.
2 Gov. Bradford, Hinkley & Drury, 1845, 11x20", 60", 29000.
Single Drivers and leading truck.
Gov. Bradford, O. C. R. R., 1878, 14x20", 42", 45000.

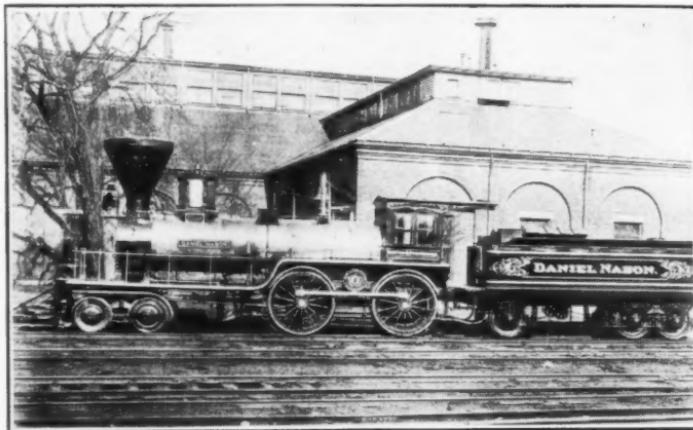


O. C. R. R. First "Pilgrim", Amoskeag, 1853.

- 3 Patuxet, Hinkley & Drury, 1846, 14x18", 60", 34000. This engine was outside connected, inclined cylinders and was the first eight wheeler owned by the road. The Indian name for the town of Kingston was Patuxet.
Metropolis, O. C. R. R., 1880, 18x24", 60", 79075.
4 Kingston, Hinkley & Drury, 1846, 14x18", 60", 48500.
Rebuilt May 1871.
No Name, Rhode Island, 1890, 18x24", 51", 92000.
5 J. Q. Adams, Hinkley & Drury, 1846, 15x20", 60", 41600.
Shawmut, Hinkley & Drury, 1848, 15x20", 54", 50000. Rebuilt Dec. 1872.

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- 6 Weymouth, Jabez Coney, 1848, 14x18", 60", 44000. Never rebuilt. Carried builders name on the dome until the end.
No Name, Taunton, 1884, 16x24", 56", 58800.
- 7 Gridley Bryant, Springfield, 1848, 14x18", 60", 48500. The old "Hingham" renamed to provide an applicably-named engine for the opening of the Granite Branch R. R.
No Name, Taunton, 1885, 16x24", 56", 58800.
- 8 Mayflower, Hinkley & Drury, 1845, 11x20", 56", 26500.
Mayflower, John Souther, 1849, 14½x20", 66", 56500.
Rebuilt September 1870 by Old Colony 14x22", 66", 57000.
- 9 Plymouth, Seth Wilmarth, 1849, 16x20", 60", 57000.
Originally a twelve wheeler and named "Tornado."
Plymouth Rock, O. C. R. R., 1878, 17x24", 66", 73500.
- 10 Pilgrim, Amoskeag, 1853, 15x20", 66", 56500.
Pilgrim, O. C. R. R., 1883, 18x24", 66", 88150. The forerunner of the heavier type of passenger engines in the country.
- 11 Richard Borden, Hinkley & Drury, 1853, 15x20", 66", 51500. From the Fall River R. R. and named for Col. Richard Borden a prominent mill man of Fall River.
- No Name, Mason, 1884, 17x24", 60", 80000.
- 12 Metropolis, Hinkley & Drury, 1854, 15x20", 60", 50000.
From Fall River R. R. and named after one of the Fall River Line boats.
Gen. Warren, O. C. R. R., 1876, 15x22", 66", 64100.
- 13 Braintree, Hinkley & Drury, 1847, 15x20", 54", 50500.
F. R. R. R.
Brant Rock, Portland Co., 1869, 12x18", 54". Hanover Branch No. 1.
No Name, Rhode Island, 1891, 18x24", 51", 92000.
- 14 Middleborough, Taunton, 1851, 15x20", 60", 52000. Crack locomotive used to haul the Fall River Line Boat Train from South Braintree to Fall River and return.
Fall River R. R. equipment. Scrapped in 1887.
Spark, Taunton, 1870, 14x22", 60", 56000. Hanover Branch No. 2

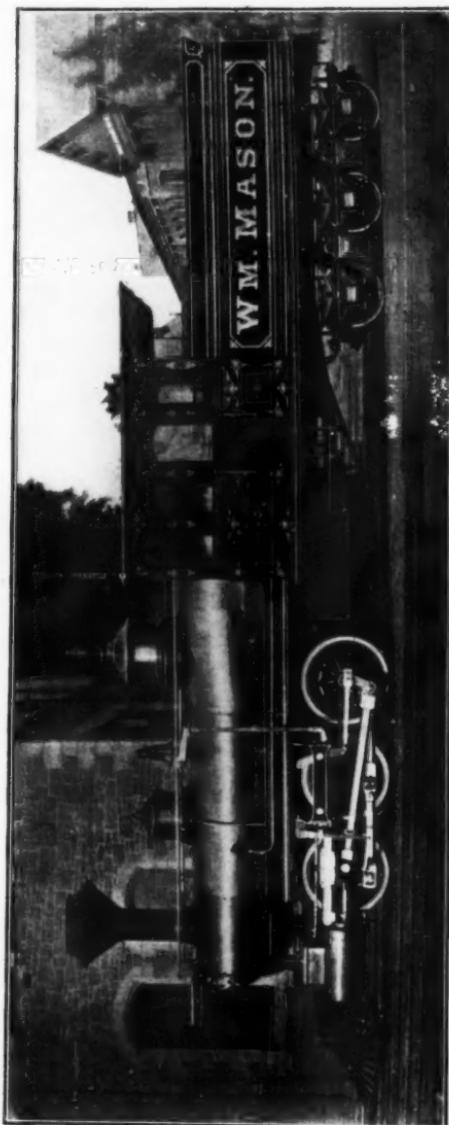
- No Name, Rhode Island, 1892, 18x24", 51", 92000.
- 15 Newport, Hinkley & Drury, 1848, 16x20", 54", 52000. F. R. R. R.
 Newport, O. C. R. R., 1883, 18x24", 66", 82700.
- 16 Randolph, Hinkley & Drury, 1845, 14x18", 66", 44000. F. R. R. R.
 Ashmont, Taunton, 1876, 14x24", 60", 62000. Originally the W. J. Rotch from the B. C. & F. R. R.
- 17 Bay State, Hinkley & Drury, 1847, 14x18", 60", 46500. F. R. R. R.
 Bay State, Mason, 1869, 15x22", 60", 60350. Originally the T. B. Wales from the B. C. & F. R. R.



Boston & Providence "Daniel Nason", G. S. Griggs, 1863.

- 18 Quiney, Hinkley & Drury, 1846, 14x18", 60", 34000.
 Quiney, Manchester, 1865, 14x22", 60", 52000. Originally the T. Henry Perkins of the Old South Shore R. R. When the Old Colony secured control of the S. S. R. R. they took over the T. Henry Perkins, renamed it Quiney, assigned it No. 18 in place of the old Abington which had been sent to the South Shore Branch.
- 19 Campello, Hinkley & Drury, 1846, 14x18", 60", 44000.
 Originally the "Bridgewater" of the Fall River R. R.
 No Name, Mason, 1885, 16x24", 54", 69400.

- 20 New York, Matfield Mfg. Co. '56, 15x20", 66", 60500. Rebuilt by O. C. R. R. 1871 with 14x22", 60", 63650. Matfield Mfg. Co. located at East Bridgewater, Mass.
- 21 Agawam, O. C. R. R., 1874, 14x20", 42", 48500. Four wheel switcher. Took the place of the old "South Boston" No. 21.
No Name, Rhode Island, 1892, 18x24", 51", 92000.
- 22 Walker, Lawrence Mfg. Co., 1859, 15x22", 54", 59000. Rebuilt by O. C. R. R. 1870. Named for Dr. Wm. J. Walker. Boiler exploded, date unknown but created a distrust for Lawrence Mch. Shop locomotives. A new boiler was put on the "Hudson" and also the "Burgess" on the Cape Cod R. R. Another the "Speedwell" was sold to the U. S. Military R. R.
- 23 Hudson, Lawrence Mfg. Co., 1859, 14x22", 66", 56500. Furnished with a new boiler, date unknown.
No Name, Rhode Island, 1891, 18x24", 51", 92000.
- 24 H. C. Brooks, Rhode Island, 1873, 14x24", 48", 52000. Four wheel switcher named for the promoter of the Union Freight Co. Later name changed to "Union."
- 25 Extension, Mason, 1863, 15x24", 60", 57500. Named "Extension" in triumph over those who had opposed the extension of the O. C. R. R. from Fall River to Newport.
- 26 Puritan, Manchester, 1865, 16x22", 60", 60000.
- 27 Electric, Manchester, 1865, 16x22", 66", 60000.
- 28 Monitor, O. C. R. R., 1865, 12x20", 45", 46500. A switching engine without a tender and the first locomotive built by the Old Colony.
- 29 Empire, Manchester, 1865, 16x24", 66", 62500. Named after the Fall River Line steamer "Empire State," but like some of the others, the name was cut down.
- 30 Taunton, Taunton, 1865, 16x24", 60", 60000.
- 31 King Philip, Manchester, 1866, 16x24", 66", 62500.
- 32 Dighton, Taunton, 1866, 15x22", 60", 58000. Sold in 1888.
No Name, Taunton, 1889, 17x24", 48", 87350.
- 33 Fall River, Taunton, 1867, 16x24", 60", 60000. There was a "Fall River" on the Fall River Road, Hinkley & Drury, 1845 single drivers and leading truck. This



B. C. & F. "Wm. Mason", Mason, 1874. His first engine to be equipped with the Walschaert valve gear and one of the first engines in this country to be equipped with it.

- engine was renamed "Wollaston" and after the consolidation of the two roads, soon went out of sight.
- 34 Active, Taunton, 1867, 10x22", 45", 37500. Switching engine. Sold to the Atlantic Dredging Co. in 1880. Active, Manchester, 1880, 15x22", 48", 50000.
- 35 St. James, Taunton, 1868, 16x22", 60", 58000. Named after the new hotel St. James, now Franklin Square House, East Newton St., Boston, Mass. Sold in 1888 to the Cleveland & Canton R. R., with the "Dighton."
- No Name, Taunton, 1889, 17x24", 48", 87350.
- 36 Somerset, Taunton, 1869, 16x24", 66", 62000. Was originally built for the Union Pacific R. R., and was nearly ready for delivery, even to having the tank lettered, but the O'd Colony needed an engine so badly, the Union Pacific consented to wait for the next one, the Old Colony taking this one.
- 37 Old Colony, Rhode Island, 1869, 16½x24", 66", 69000. The first of the heavier engines. Named by J. H. French.
- 38 Narragansett, Taunton, 1869, 16½x24", 66", 68000. The tender of this engine had a painting of the steamer "Bristol" on one side and its consort the "Providence" on the other. The second "Pilgrim" had a painting "The Landing of the Pilgrims, 1620," on each side of the tender.
- 39 Magnet, Taunton, 1871, 10x22", 42", 37500. Tank switcher.
- 40 Atlantic, O. C. R. R., 1872, 15x22", 66", 61000. Mr. J. K. Taylor, now Master Mechanic of the Old Colony.
- 41 Neponset, O. C. R. R., 1872, 15x22", 66", 61000.
- 42 South Shore, John Souther, 1854, 14x20", 66", 48000. From South Shore R. R.
No Name, Taunton, 1884, 17x24", 63", 92925.
- 43 Cohasset, John Souther, 1854, 14x20", 60", 48000. From South Shore R. R.
No Name, Rhode Island, 1893, 18x24", 51", 92000.
- 44 Abington, Jabez Coney, 1848, 14x18", 60", 46000. One of the original pioneer locomotives that went to the South Shore R. R. from the Old Colony. Disappear-

ed from the South Shore about 1873/4 and used at Somerset as a shifter.

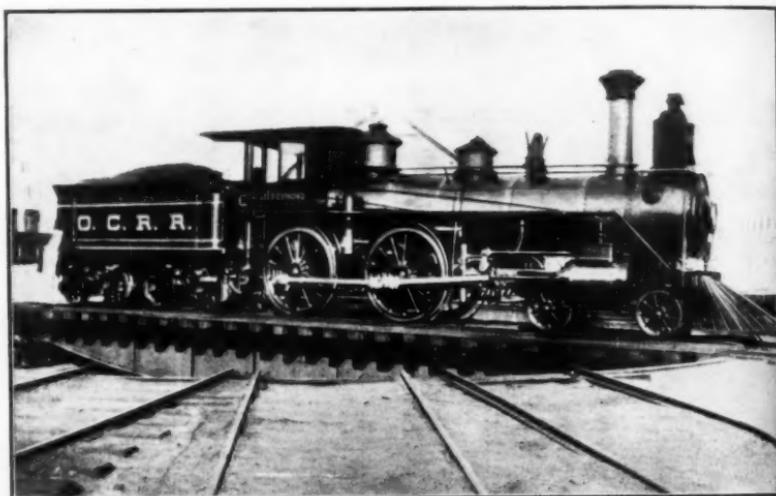
Abington, Hinkley & Drury, 1854, 14x20", 60", 46000.

This was the old "W. L. B. Gibbs" from the Fairhaven Branch that was rebuilt by the Old Colony in 1881. It was run down to Hyannis by engineer Charles Westgate and ended her days down there.

No Name, Mason, 1886, 18x26", 60", 106750.

45 Spark, Taunton, 1871, 14x22", 60", 56000. Sold to the Hanover Branch R. R.

Jacob H. Loud, O. C. R. R., 1882, 18x26", 60", 83000.



Old Colony, "Charles Richmond", Mason, 1870.

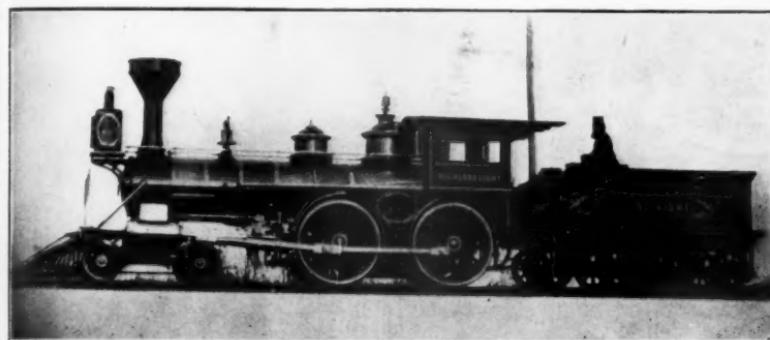
46 Brockton, O. C. R. R., 1872, 16x24", 60", 63000. Originally named "North Bridgewater," but changed to "Brockton" when the name of North Bridgewater was changed.

47 Boston, O. C. R. R., 1871, 15x22", 66", 61000.

48 Nauset, Hinkley & Drury, 1848, 12½x20", 60", 40000. From the Cape Cod R. R. Originally named the "Barnstable". Had originally single driver and leading truck, later doubled and lengthened.

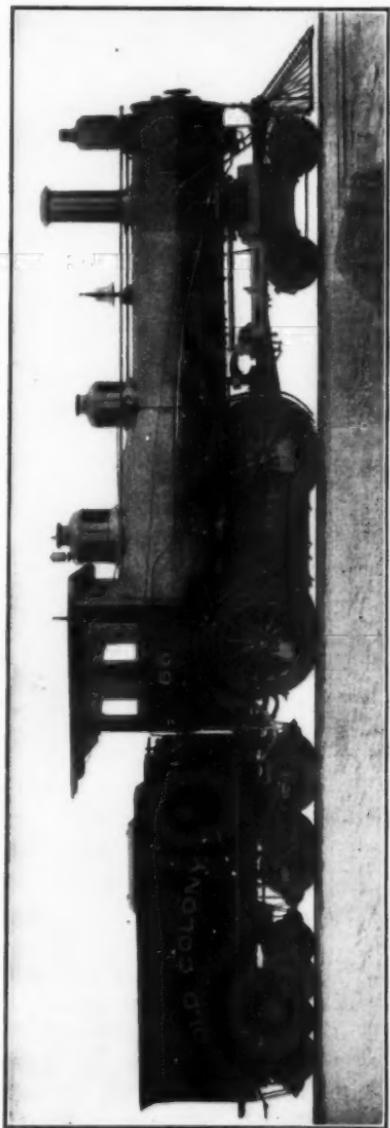
E. N. Winslow, O. C. R. R., 1881, 18x24", 60", 79075.

- 49 Cape Cod, Hinkley & Drury, 1848, 15x20", 54", 50000.
 Cape Cod. R. R.
- Hanover, Taunton, 1874, 15x22", 60", 59800. From the
 Hanover Branch R. R. No. 2.
- No Name, Rhode Island, 1893, 18x24", 51", 92000.
- 50 Webster, Matfield Mfg. Co., 1857, 15x20", 66", 52000.
 Cape Cod. R. R.
- Daniel Webster, O. C. R. R., 1880, 18x24", 60", 78875.
- 51 Wareham, Hinkley & Drury, 1847, 13½x18", 60", 42000.
 C. C. R. R.
- John A. Andrew, O. C. R. R., 1880, 18x24", 66", 78875.
- 52 Sandwich, Hinkley & Drury, 1847, 13½x20", 60", 44000.
 C. C. R. R.
- Sandwich, O. C. R. R., 1883, 18x26", 60", 82800.



Cape Cod R. R. "Highland Light", Mason, 1867.
 Mr. Mason is seated on the tender.

- 53 Nantucket, Hinkley & Drury, 1854, 15x20", 66", 52000.
 Cape Cod R. R.
- Oliver Ames, O. C. R. R., 1877, 17x22", 66", 68600.
- 54 Burgess, Lawrence Mfg. Co., 1854, 14x22", 60", 57000.
 Cape Cod R. R. Original name the "Benjamin Burgess." Reboilered after the explosion of the "Walker" at Wm. Mason, Taunton, Mass. An engine named the "Chamblay" was loaned the C. C. R. R. while the "Burgess" was rebuilt. Mr. J. K. Taylor rebuilt this engine Nov. 1873.



Old Colony #66, Mason, 1856. Built for freight service.

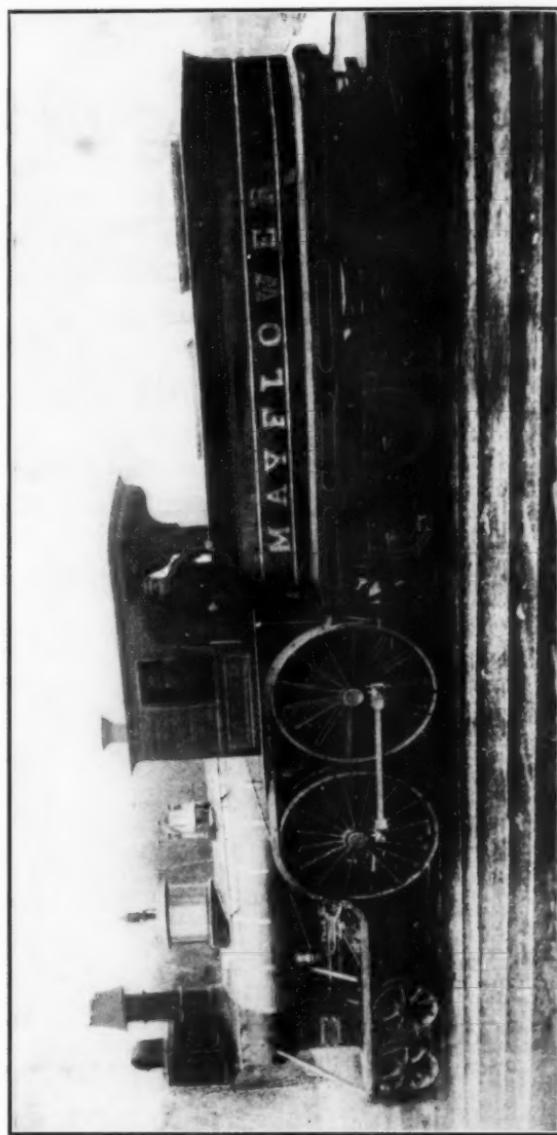
- 55 Highland Light, Mason, 1867, 14x22", 60", 52000. Cape Cod R. R.
- 56 Right Arm, Hinkley & Wms., 1871, 15x22", 54", 54000.
Cape Cod R. R. Cape Cod is called the right arm of Massachusetts.
- No Name, Hinkley, 1889, 19x24", 54", 99000. Mogul Engine.
- 57 Bounty, Rogers, ?, 13½x20", 60", 44000. C. C. R. R.
Gov. Stearns, O. C. R. R., 1879, 16x24", 60", 62000.
- 58 Stoughton, Taunton, 1868, 10x20", 48", 39000. Tank switcher.
No Name, Rhode Island, 1892, 18x24", 51", 92000.
- 59 Victor, O. C. R. R., 1873, 14x26", 42", 48500. Tank switcher.
- 60 Bristol, O. C. R. R., 1873, 16x24", 66", 63000.
- 61 Mt. Hope, O. C. R. R., 1873, 16x24", 66", 63000.
- 62 Miles Standish, Manchester, 1873, 16x24", 60", 63500.
- 63 J. Q. Adams, Manchester, 1873, 16x24", 60", 63500.
No Name, O. C. R. R., 1893, 19x24", 63", 115000. Mogul Engine.
- 64 Royal Turner, O. C. R. R., 1874, 16x24", 66", 63000.
- 65 Pocasset, O. C. R. R., 1874, 16x24", 60", 63000.
- 66 Mercury, Taunton, 1857, 13x20", 60", 46500. From the Middleboro & Taunton R. R.
No Name, Mason, 1886, 18x26", 60", 106750.
- 67 Centennial, O. C. R. R., 1876, 15x22", 60", 60000.
- 68 Falmouth, O. C. R. R., 1876, 16x24", 66", 63000.
- 69 Easton, Baldwin, 1876, 15x24", 60", 62000. Purchased from the Northern Pacific R. R.
- 70 Northern, Baldwin, 1875, 15x24", 60", 62000. From N. P. R. R.
- 71 Pacific, Baldwin, 1876, 15x24", 60", 62000. From N. P. R. R.
- 72 Milton, Baldwin, 1876, 15x24", 60", 62000. From N. P. R. R.
- 73 Leominster, Hinkley & Drury, 1849, —, —, —. B. C. & F. No. 3.
No Name, Taunton, 1885, 17x24", 63", 92900.
- 74 Rollstone, Taunton, 1851. Sold to Rhode Is. L. W., B. C. & F. No. 1.

Old Colony #232, Old Colony R. R. builder, 1891.

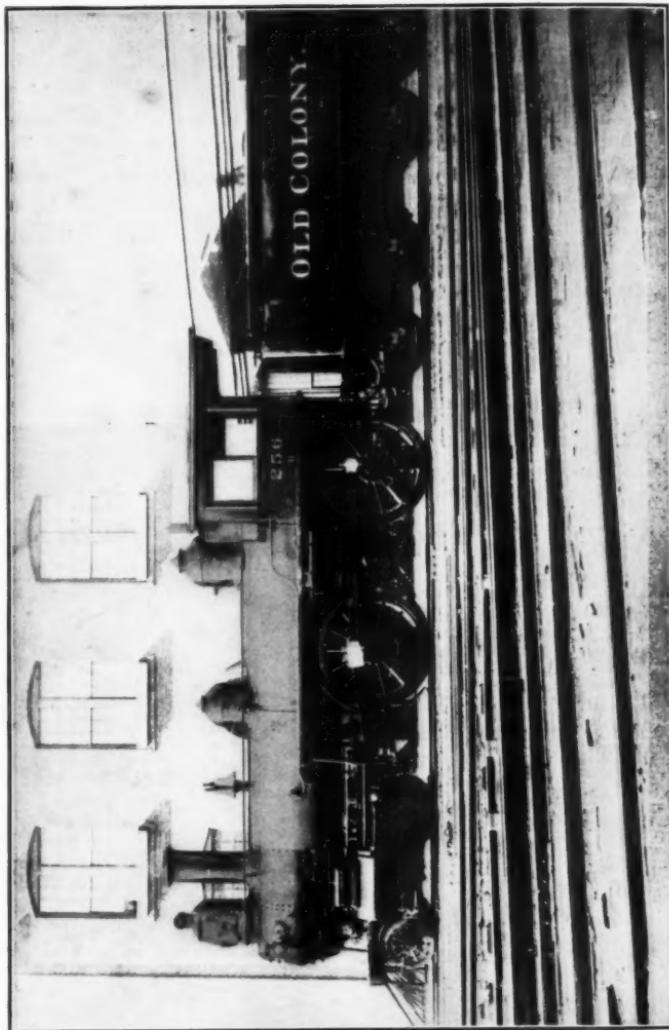


- Rollstone, Taunton, 1880, 16x22", 54", 53700. B. C. & F. No. 1 2nd.
- 75 Washacum, Hinkley & Drury, 1850. Sold to Rhode Is. L. W., B. C. & F. No. 2.
No Name, Taunton, 1880, 18x26", 60", 82100.
- 76 G. E. Towne, Hinkley, 1869. Broken up in 1883. B. C. & F. No. 15.
Allerton, Hinkley & Wms., 15x22", 60". Nantasket Beach No. 3.
- 77 E. W. Harris, Hinkley, 1871, 16x24", 60", 68300. B. C. & F. No. 18.
- 78 F. B. Fay, Hinkley, 1872, 16x24", 60", 68000. B. C. & F. No. 21.
- 79 Lowell, Hinkley, 1872, 15x22", 48", 47500. B. C. & F. No. 19.
- 80 Marlboro, Hinkley, 1872, 15x22", 60", 57400. B. C. & F. No. 7.
- 81 W. D. Peck, Hinkley, 1873, 14x22", 54", 50000. B. C. & F. No. 22.
- 82 Cyrus Gale, Hinkley, 1875, 17x24", 69", 72810. B. C. & F. No. 24.
- 83 Saturn, Taunton Branch, 1861, 15x20", 60", 50000. B. C. & F. No. 27.
A. E. Swazey, O. C. R. R., 1881, 17½x22", 66", 75000.
- 84 Jupiter, Taunton, 1861, 14x20", 66", 50000. Originally named "Triumph" and built for the Boston & Lowell R. R. B. C. & F. No. 32.
Walpole, Taunton, 1881, 18x26", 60", 83250.
- 85 Sterling, Taunton, 1866, 16x22" 60", 43300. B. C. & F. No. 4.
- 86 Clinton, Taunton, 1866, 16x22", 60", 62400. B. C. & F. No. 5.
- 87 Northboro, Taunton, 1866, 14x22", 60", 30000. B. C. & F. No. 6. Sold to the Seabasticook & Moosehead R. R. Rockland, Mason, 15x22", 60", 58650. Nantasket Beach No. 5.
No Name, O. C. R. R., 1893, 19x24", 56", 115000. Mogul.
- 88 E. Baylies, Taunton, 1866, 16x22" 60", 57900. B. C. & F. No. 34. Sold to the Cleveland & Canton R. R.

Old Colony "Mayflower", John Soutier, 1849.

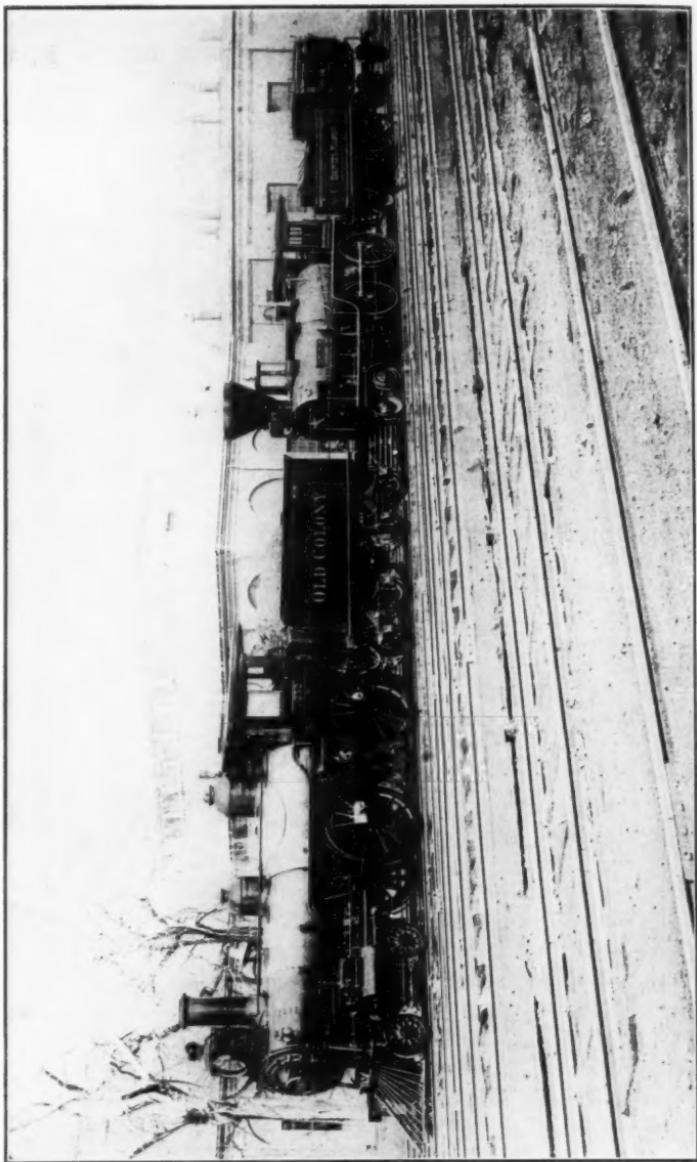


- No Name, O. C. R. R., 1893, 19x24", 56", 115000. Mogul.
- 89 Joseph Grinnell, Taunton, 1867, 16x22", 60", 62400. B. C. & F. No. 28.
- No Name, O. C. R. R., 1893, 19x24", 56", 115000. Mogul.
- 90 Fitchburg, Taunton, 1867, 16x22", 60", 68600. B. C. & F. No. 8. Sold to the Cleveland & Canton R. R.
- No Name, Hinkley, 1889, 19x24", 54", 99000. Mogul.
- 91 Berlin, B. C. & F., 1869. B. C. & F. No. 9.
- Berlin, O. C. R. R., 1880, 17x22", 60", 74800.
- 92 Thayer, Taunton, 1870, 16x22", 60", 61300. B. C. & F. N. Thayer No. 11. Sold to the Cleveland & Canton R. R.
- No Name, Hinkley, 1889, 19x24", 54", 99000. Mogul.
- 93 G. A. Torry, Taunton, 1870, 16x24", 60", 66800. B. C. & F. No. 12.
- 94 H. A. Blood, Taunton, 1871, 16x22", 69", 63000. B. C. & F. No. 14. Sold to the Cleveland & Canton R. R.
- No Name, Hinkley, 1889, 19x24", 54", 99000.
- 95 W. A. Crocker, Taunton, 1871, 16x24", 60", 67800. B. C. & F. No. 36.
- 96 H. N. Bigelow, Taunton, 1872, 16x24", 54", 65200. B. C. & F. No. 20.
- 97 Aeushnet, Taunton, 1876, 15x22", 48", 47700. B. C. & F. No. 26.
- 98 L. Nichols, Rhode Island, 1869, 15x22", 60", 59800. B. C. & F. No. 10.
- 99 New Bedford, Rhode Island, 1869, 16x22", 60", 68600. B. C. & F. No. 29.
- 100 Foxboro, Rhode Island, 1870, 16x22", 66", 66300. B. C. & F. No. 13.
- 101 Thomas Mandell, Rhode Island, 1870, 16x24", 60", 66000. B. C. & F. No. 30.
- 102 Ward M. Parker, Rhode Island, 1872, 16x24", 60", 73100. B. C. & F. No. 31.
- 103 Charles I. Wood, Rhode Island, 1872, 16x22", 66", 66300. B. C. & F. No. 39.
- 104 Charles Richmond, Mason, 1870, 16 $\frac{1}{2}$ x24", 60", 64100. B. C. & F. No. 35.
- 105 S. H. Howe, Mason, 1871, 16x25", 60", 63100. B. C. & F. No. 16.



Old Colony # 256, Manchester, 1893. A typical Lauder engine of the later day.

- 106 E. P. Carpenter, Mason, 1871, 16x24", 60", 65800. B. C.
& F. No. 17.
- 107 W. B. Sproat, Mason, 1872, 14x22", 48", 50675. B. C.
& F. No. 37.
- 108 Wm. Mason, Mason, 1874, 16x24", 42", 66000. B. C. &
F. No. 23.
- No Name, Taunton, 1885, 17x24", 60", 90000.
- 109 S. A. Webber, Mason, 1875, 16x24", 60", 65500. B. C. &
F. No. 25.
- 110 Dorchester, O. C. R. R., 1881, 18x24", 66", 83100.
- 111 Speedwell, O. C. R. R., 1882, 17x24", 66", 80650.
- 112 Randolph, O. C. R. R., 1882, 18x26", 60", 82900.
- 113 Bridgewater, O. C. R. R., 1882, 18x26", 60", 82900.
- 114 Anawan, O. C. R. R., 1882, 15x22", 48", 53400.
- 115 Massasoit, O. C. R. R., 1883, 15x22", 48", 53400.
- 116 Medfield, Taunton, 1882, 18x26", 60", 85000.
- 117 Sherborn, Taunton, 1882, 18x26", 60", 85850.
- 118 Norton, Taunton, 1882, 18x26", 60", 84900.
- 119 Framingham, Taunton, 1883, 16x24", 54", 62150.
- 120 Suffolk, Hinkley, 1883, 17x24", 66", 78000.
- 121 Norfolk, Hinkley, 1883, 17x24", 60", 78000.
- 122 ——, O. C. R. R., 1884, 18x24", 72", 87000.
- 123 ——, O. C. R. R., 1884, 16x24", 60", 80000.
- 124 ——, O. C. R. R., 1884, 16x24", 60", 80000.
- 125 ——, Taunton, 1884, 18x24", 60", 94450.
- 126 ——, Taunton, 1884, 18x24", 60", 94450.
- 127 ——, O. C. R. R., 1885, 17x24", 63", 91025.
- 128 ——, O. C. R. R., 1885, 17x24", 63", 91025.
- 129 ——, O. C. R. R., 1886, 17x24", 63", 93375.
- 130 ——, Taunton, 1885, 18x26", 60", 95000.
- 131 ——, Taunton, 1885, 18x26", 60", 95000.
- 132 ——, O. C. R. R., 1886, 18x24", 66", 97750.
- 133 ——, O. C. R. R., 1886, 18x24", 66", 97750.
- 134 ——, Taunton, 1886, 18x26", 60", 93600.
- 135 ——, Taunton, 1886, 18x26", 60", 93600.
- 136 ——, O. C. R. R., 1887, 18x24", 66", 97750.
- 137 ——, O. C. R. R., 1887, 18x24", 66", 96000.
- 138 ——, O. C. R. R., 1887, 17x24", 66", 93950.
- 139 ——, O. C. R. R., 1888, 17x24", 66", 93950.
- 140 ——, O. C. R. R., 1888, 17x24", 66", 93950.



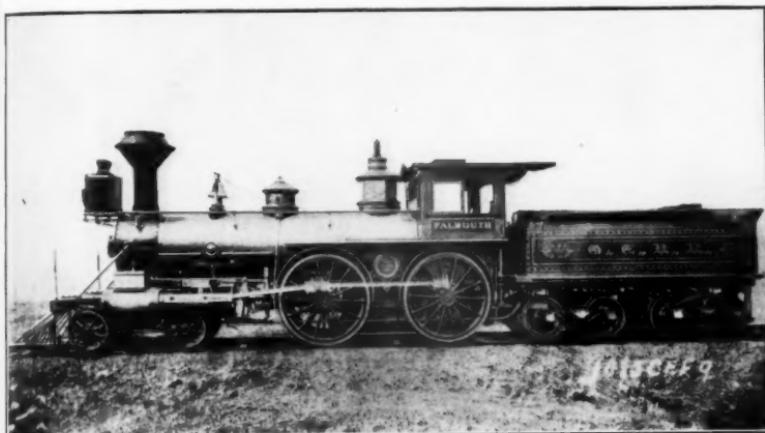
The Old Colony Exhibit at the World's Fair, 1892, consisting of O. C. #252, the "Daniel Nason" and the passenger coach of 1833.

- 141 ——, Taunton, 1887, 17x24", 60", 91000.
142 ——, Taunton, 1887, 17x24", 60", 90000.
143 ——, Taunton, 1887, 17x24", 48", 87350.
144 ——, Taunton, 1887, 17x24", 48", 87350.
145 ——, O. C. R. R., 1889, 18x24", 66", 97800.
146 ——, O. C. R. R., 1889, 18x24", 66", 97800.
147 ——, O. C. R. R., 1889, 18x24", 66", 97800.
148 ——, O. C. R. R., 1889, 18x24", 66", 97800.
149 ——, Taunton, 1888, 18x24", 66", 97800.
150 ——, Taunton, 1888, 18x24", 66", 97800.
151 ——, Taunton, 1888, 18x24", 66", 97800.
152 Nantasket, Hinkley, 1847. Inside Crank engine bought
from the B. & A.
152 ——, O. C. R. R., 1889, 18x24", 66", 98100.
153 Grover Cleveland, Mason, 1887, 14x18", 48", 54300. Nan-
tasket Beach No. 6
154 Norfolk, G. S. Griggs, 1845, 14 $\frac{1}{2}$ x18", 55", 34460. B. &
P. No. 1.
T. P. I. Goddard, Rhode Island, 1880, 17x24", 60", 73800.
155 Massachusetts, G. S. Griggs, 1846, 14 $\frac{3}{4}$ x18", 60". B. &
P. No. 2.
Wm. R. Robeson, Rhode Island, 1881, 18x22", 66", 91850.
156 Hyde Park, G. S. Griggs, 1848, 14 $\frac{3}{4}$ x18", 60". B. & P.
No. 3. Made from the "Iron Horse."
Thos. B. Wales, Rhode Island, 1878, 17x24", 66", 73900.
157 Rhode Island, G. S. Griggs, 1848, 14 $\frac{3}{4}$ x20", 66", 44507.
B. & P. No. 4.
Henry A. Whitney, Mason, 1884, 18x24", 66", 100800.
158 Providence, Taunton, 1849, 15x18", 60", 41400. B. & P.
No. 5.
Providence, Rhode Island, 1871, 16x24", 60", 64950.
159 Neponset, G. S. Griggs, 1849, 14 $\frac{3}{4}$ x20", 66", 43050. B.
& P. No. 6.
Geo. R. Minot, Rhode Island, 1883, 18x24", 66", 91850.
160 Highlander, G. S. Griggs, 1850, 14 $\frac{3}{4}$ x18", 48", 41200. B.
& P. No. 7.
Geo. R. Russell, Rhode Island, 1876, 16x24", 66", 64950.
161 W. R. Lee, G. S. Griggs, 1853, 15 $\frac{3}{4}$ x18", 66", 48950. B.
& P. No. 8.
Wm. Raymond Lee, Rhode Island, 1874, 16x24", 66",
64950.



Old Colony #180, Old Colony R. R. builder, 1890.

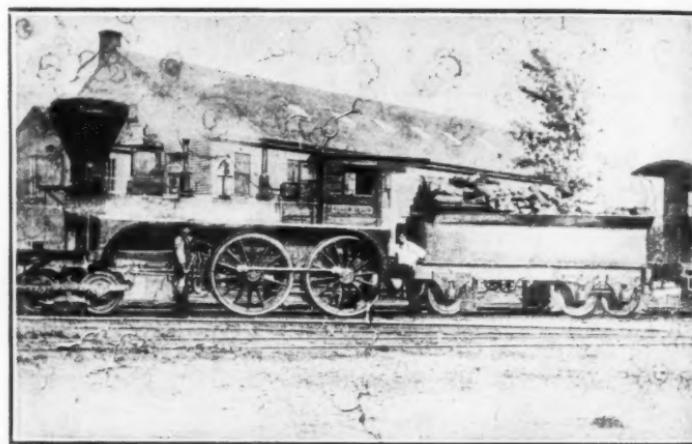
- 162 Washington, G. S. Griggs, 1854, 15x20", 66", 48666. B.
& P. No. 9.
- Susan Nipper, Rhode Island, 1888, 15x24", 48", 53000.
- 163 New York, G. S. Griggs, 1854, 15x20", 60", 48050. B. &
P. No. 10.
- Wm. Merrill, Rhode Island, 1887, 17x20", 54", 109760.
- 164 Mansfield, Taunton, 1855, 16x20", 60", 52900. B. & P.
No. 11.
- Henry Dalton, Rhode Island, 1877, 16x24", 66", 64950.
- 165 Attleboro, G. S. Griggs, 1855, 15x20", 54", 44900. B. &
P. No. 12.
- B. B. Torrey, Rhode Island, 1880, 17x24", 60", 73800.
- 166 Foxboro, Locks & Canal Co., 1859, 14x20", 66", 44000. B.
& P. No. 13.
- Jos. W. Balch, Rhode Island, 1881, 17x24", 66", 73900.



O. C. R. R. "Falmouth", Old Colony R. R. builder, 1876.

- 167 Sharon, Locks & Canal Co., 1859, 14x20", 66", 44000. B.
& P. No. 14.
- James Daily, Rhode Island, 1881, 17x24", 60", 73800.
- 168 Roxbury (2nd), G. S. Griggs, 1858, 15½x20", 60", 46000.
B. & P. No. 15.
- No Name, O. C. R. R., 1890, 16x24", 69", 90000.
- 169 Dedham (2nd), G. S. Griggs, 1860, 16x20", 66", 46500.
B. & P. No. 16.

- Robert Keayne, Rhode Island, 1888, 18x24", 66", 103000.
B. & P. No. 1638.
- 170 Daniel Nason, G. S. Griggs, 1863, 16x20", 54", 46500. B. & P. No. 17. This engine is at Purdue University.
- No Name, O. C. R. R., 1892, 19x24", 63", 115000. Mogul.
- 171 Boston, G. S. Griggs, 1863, 16x20", 54", 46500. B. & P. No. 18.
- Arnold Green, Rhode Island, 1885, 17x20", 54", 109760.
- 172 Commonwealth, G. S. Griggs, 1864, 15 $\frac{3}{4}$ x20", 60", 46000. B. & P. No. 19.
- No Name, O. C. R. R., 1892, 19x24", 63", 115000. Mogul.

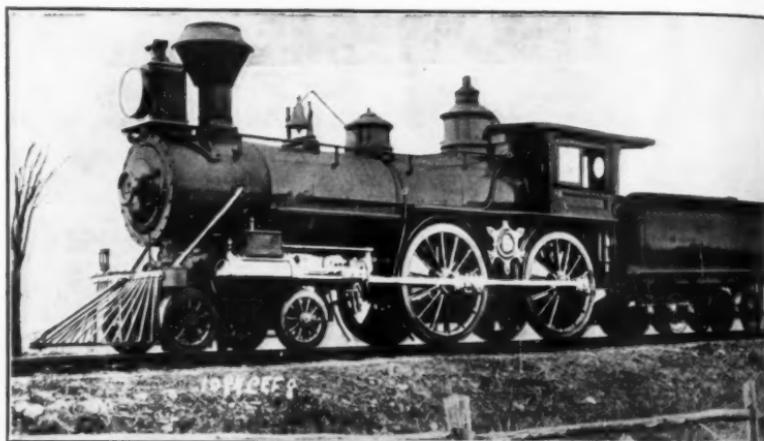


Boston & Providence "Iron Horse", G. S. Griggs 1848.

- 173 G. W. Whistler, Taunton, 1865, 16x20", 60", 46500. B. & P. No. 20.
- Royal C. Taft, Rhode Island, 1881, 17x24", 60", 73800.
- 174 A. A. Folsom, Rhode Island, 1867, 16x24", 66", 60650. B. & P. No. 21.
- 175 Readville, Taunton, 1865, 16x20", 60", 56000. B. & P. No. 22.
- Readville, Taunton, 1884, 16x24", 69", 82900.
- 176 W. H. Morrell, Hinkley, 1868, 16x24", 60", 66000. B. & P. No. 23.

3000.
D. B.
sity.
ogul.
& P.
0.
6000.
ogul.
177 John Barstow, G. S. Griggs, 1865, 16x22", 60", 54000. B.
& P. No. 24.
C. H. Wheeler, Rhode Island, 1885, 17x20", 54", 113100.
178 Gen'l Grant, G. S. Griggs, 1866, 16x20", 66", 56000. B.
& P. No. 25.
D. B. Standish, Taunton, 1883, 16x24", 60", 82900.
179 Judge Warren, G. S. Griggs, 1868, 17x22", 66", 56000. B.
& P. No. 26.
Squantum, Taunton, 1885, 16x20", 54", 84000. Purchased
from Providence Warren & Bristol R. R.
180 David Tyler, G. S. Griggs, 1869, 17x22", 66", 56000. B.
& P. No. 27.
No Name, O. C. R. R., 1890, 19x24", 56", 115000. Mogul.
181 Gov. Clifford, G. S. Griggs, 1869, 17x22", 66", 60000. B.
& P. No. 28.
R. H. Stevenson, Taunton, 1886, 17x24", 60", 83500.
182 Paul Revere, G. S. Griggs, 1871, 17x22", 66", 56000. B.
& P. No. 29.
No Name, O. C. R. R., 1892, 19x24", 56", 115000. Mogul.
183 G. S. Griggs, Rhode Island, 1869, 16x24", 60", 60950. B.
& P. No. 30.
184 John Winthrop, Rhode Island, 1870, 16x24", 60", 60950.
B. & P. No. 31.
185 Pegasus, Taunton, 1868, 17x22", 66", 60000. B. & P. No.
32.
No Name, O. C. R. R., 1892, 19x24", 63", 115000. Mogul.
186 Roger Williams, Rhode Island, 1870, 16x24", 60", 58000.
B. & P. No. 33.
187 Pancks, Rhode Island, 1871, 14x24", 48", 40000. B. &
P. No. 34.
188 W. G. McNeill, Rhode Island, 1872, 16½x24", 66", 64000.
B. & P. No. 35.
189 Sam Weller, Rhode Island, 1872, 14x24", 48", 45100. B.
& P. No. 36.
190 B. R. Nichols, Rhode Island, 1872, 16x24", 60", 60900.
B. & P. No. 37.
191 John Lightner, Rhode Island, 1872, 16x24", 60", 60950.
B. & P. No. 38.
192 W. W. Woolsey, Rhode Island, 1872, 16x24", 60", 60900.
B. & P. No. 39.

- 193 Stoughton, Rhode Island, 1872, 14x22", 54", 40000. B. & P. No. 40.
 John H. Clifford, Rhode Island, 1887, 16x24", 66", 90000.
- 194 Mark Tapley, Rhode Island, 1873, 12x22", 48", 42500. B. & P. No. 41.
- 195 Micawber, Rhode Island, 1873, 14x24", 48", 45100. B. & P. No. 42.
- 196 George Richards, Rhode Island, 1873, 16x24", 60", 60950. B. & P. No. 43.
- 197 Moses B. Ives, Rhode Island, 1873, 17x24", 66", 69450. B. & P. No. 44.

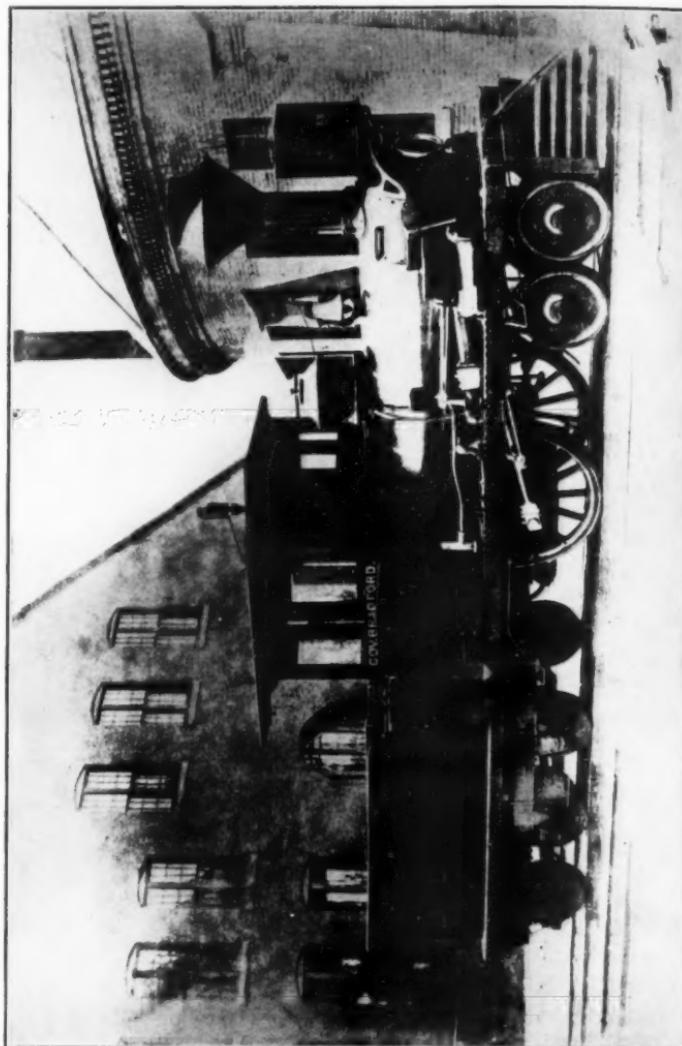


O. C. R. R. "Dorchester", Old Colony R. R. builder, 1881.

- 198 Viaduct, Boston & Prov., 1873, 17x22", 66", 56000. B. & P. No. 45. The last inside connected built by the road.
 No Name, O. C. R. R., 1893, 19x24", 56", 115000. Mogul.
- 199 J. H. Woleott, Rhode Island, 1879, 17x24", 66", 73900. B. & P. No. 46.
- 200 Thomas Motley, Rhode Island, 1880, 17x24", 66", 73900. B. & P. No. 47.
- 201 D. L. Davis, Rhode Island, 1881, 17x24", 60", 73900. B. & P. No. 48.
- 202 Henry A. Chase, Rhode Island, 1881, 17x24", 66", 73900. B. & P. No. 49.

- B. 203 Isaiah Hoyt, Rhode Island, 1882, 17x24", 60", 73900. B.
000. & P. No. 50.
500. 204 H. F. Barrows, Rhode Island, 1882, 15x20", 54", 87350.
B. & P. No. 51.
950. 205 Abner Alden, Rhode Island, 1882, 17x24", 66", 73900.
450. B. & P. No. 52.
- B. 206 Moses Boyd, Rhode Island, 1883, 17x24", 60", 73900. B.
950. & P. No. 53.
450. 207 Jack Bunsby, Rhode Island, 1883, 14x24", 48", 53000. B.
B. & P. No. 54.
950. 208 Joseph Grinnell, Rhode Island, 1884, 16x20", 54", 91850.
450. B. & P. No. 55.
- B. 209 Wm. Appleton, Rhode Island, 1884, 17x24", 66", 91850.
950. B. & P. No. 56.
450. 210 Fred Paine, Taunton, 1884, 17x24", 66", 87350. B. & P.
B. No. 57.
950. 211 Roger Wolcott, Taunton, 1886, 17x24", 60", 83500. B.
450. & P. No. 58.
- B. 212 W. G. Russell, Rhode Island, 1886, 17x20", 54", 113100.
950. B. & P. No. 59.
450. 213 Winslow Warren, Rhode Island, 1886, 17x24", 60", 91850.
B. & P. No. 60.
- B. 214 C. H. Warren, Rhode Island, 1887, 17x20", 54", 113100.
950. B. & P. No. 61.
450. 215 Stoughton (2nd), Hinkley, 1887, 18x24", 60", 91850. B.
B. & P. No. 62.
- B. 216 Henry W. Dale, Rhode Island, 1887, 17x24", 66", 91850.
950. B. & P. No. 63.
450. 217 J. C. Yatman, Rhode Island, 1887, 17x24", 66", 91850. B.
B. & P. No. 64.
- B. 218 Utility, Rhode Island, 1882, 15x24", 48", 44800. B. & P.
950. No. 65.
450. 219 Useful, Rhode Island, 1871, 14x24", 48", 44800. B. & P.
B. No. 66.
950. 220 Iron Clad, Rhode Island, 1870, 14x24", 48", 44800. B.
450. & P. No. 67.
- B. 221 L. M. E. Stone, Taunton, 1884, 17x24", 60", 82000. P.
950. W. & B. No. 1.
450. 222 Wm. Goddard, Rhode Island, 1881, 16x24", 60", 73900.
B. P. W. & B. No. 2.

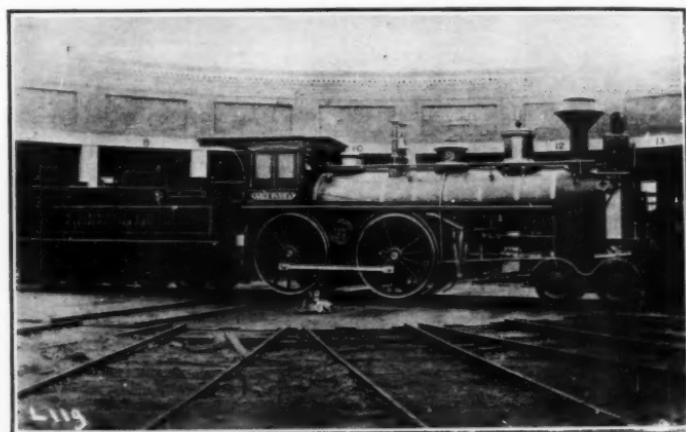
Old Colony "Gov. Bradford", Hinkley & Drury, 1845.



- 223 Gen. Burnside, Taunton, 1866, 16x22", 60", 43300. P.
W. & B. No. 3.
- No Name, O. C. R. R., 1893, 19x24", 56", 115000. Mogul.
- 224 Annawonseutt, Taunton, 1885, 17x20", 60", 118700. P.
W. & B. No. 4.
- 225 S. W. Church, Rhode Island, 1876, 16x24", 60", 64950. P.
W. & B. No. 5.
- 226 F. M. Weld, Rhode Island, 1880, 16x24", 66", 80000. P.
W. & B. No. 6.
- 227 Pokanocket, Mason, 1885, 16x24", 54", 61800. P. W. &
B. No. 7.
- 228 ——, O. C. R. R., 1890, 18x24", 66", 97800.
- 229 ——, O. C. R. R., 1890, 18x24", 66", 97800.
- 230 ——, O. C. R. R., 1890, 17x24", 69", 98000.
- 231 ——, Mason, 1890, 16x24", 57", 148000. A heavy bogie
built originally for the South Atlantic & Ohio R. R.
- 232 ——, O. C. R. R., 1891, 18½x24", 69", 109000. Originally
a compound engine, modified to a simple.
- 233 ——, O. C. R. R., 1891, 18x24", 69", 99000.
- 234 ——, O. C. R. R., 1891, 18x24", 69", 99000.
- 235 ——, O. C. R. R., 1891, 18x24", 69", 99000.
- 236 ——, O. C. R. R., 1891, 18x24", 69", 99000.
- 237 ——, O. C. R. R., 1891, 18x24", 69", 99000.
- 238 ——, O. C. R. R., 1892, 18x24", 69", 99000.
- 239 ——, Manchester, 1892, 18x24", 69", 99000.
- 240 ——, Manchester, 1892, 18x24", 69", 99000.
- 241 ——, Manchester, 1892, 18x24", 69", 99000.
- 242 ——, Manchester, 1892, 18x24", 69", 99000.
- 243 ——, Manchester, 1892, 18x24", 69", 99000.
- 244 ——, Manchester, 1892, 18x24", 69", 99000.
- 245 ——, Manchester, 1892, 18x24", 69", 99000.
- 246 ——, Manchester, 1892, 18x24", 69", 99000.
- 247 ——, Manchester, 1892, 18x24", 69", 99000.
- 248 ——, Manchester, 1892, 18x24", 69", 99000.
- 249 ——, Manchester, 1893, 18x24", 69", 99000.
- 250 ——, Manchester, 1893, 18x24", 69", 99000.
- 251 ——, Manchester, 1893, 18x24", 69", 99000.
- 252 ——, Manchester, 1892, 18x24", 69", 99000.
- 253 ——, Manchester, 1893, 18x24", 69", 99000.
- 254 ——, Manchester, 1892, 18x24", 69", 99000.

- 255 ——, Manchester, 1892, 18x24", 69", 99000.
 256 ——, Manchester, 1893, 18x24", 69", 99000.
 257 ——, Manchester, 1893, 18x24", 69", 99000.
 258 ——, Manchester, 1893, 18x24", 69", 99000.
 261 ——, O. C. R. R., 1893, 18x26", 79", 116000.

The Boston & Providence, by far an older road than the Old Colony, had many early engines that never bore a number or ever came on the Old Colony roster. They were as follows: "Whistler," Robert Stephenson, England, 1833. This locomotive was used to open the road to Readville, Mass. "Boston," Edward Bury, England, 1835. 12x18", 60", rebuilt from a 2-2-0 to 4-2-0.



Boston & Providence "Judge Warren", G. S. Griggs, 1868.

- "New York," George Forester, England, 1835.
 "Lowell," Locks & Canal Co., 1835.
 "Providenee," Locks & Canal Co., 1835.
 "Blaekhawk," Long & Morris 1834, and subsequently sold. This engine does not appear on the list of 1838 but is one of the 13 original engines of the road.
 "Baldwin No. 1," M. W. Baldwin, 1836.
 "Baldwin No. 2," M. W. Baldwin, 1836.
 "Baldwin No. 3," M. W. Baldwin, 1836.
 "Young No. 1," Newcastle Mfg. Co., 1836.
 "Young No. 2," Newcastle Mfg. Co., 1836.

"Philadelphia," Wm. H. Norris, 1835.

"Tiot," Locks & Canal Co., 1837.

"King Philip," Locks & Canal Co., 1839. Rebuilt and renamed "Attleborough."

In November, 1856, the motive power of the Boston & Providence is listed as follows:

"Boston," Edward Bury, 1835, 12x18", 60".

"Norfolk," G. S. Griggs, 1845, 13 $\frac{1}{2}$ x18", 55", 34460, 4-4-0. Drop Hook.

"Suffolk," G. S. Griggs, 1846 14 $\frac{5}{8}$ x18", 60", 35705, 4-4-0. Drop Hook.

"Bristol," G. S. Griggs, 1846, 14 $\frac{5}{8}$ x18", 60", 35805, 4-4-0. Drop Hook.

"Massachusetts," G. S. Griggs, 1846, 14 $\frac{3}{4}$ x18", 60", 4-4-0. Link.

"Blackstone," G. S. Griggs, 1847, 14 $\frac{3}{4}$ x20", 60", 4-4-0. Link.

"Taghonic," G. S. Griggs, 1848, 14 $\frac{3}{4}$ x18", 66", 41500, 4-4-0. Link.

"Narragansett," G. S. Griggs, 16x20", 54", 40100, 4-4-0. Fixed Cut Off.

"Iron Horse," G. S. Griggs, 1848, 14 $\frac{3}{4}$ x18", 60", 4-4-0. Link.

"Rhode Island," G. S. Griggs, 1848, 14 $\frac{3}{4}$ x20", 66", 44507, 4-4-0. Fixed Cut Off.

"Providence," Taunton, 1849, 15x18", 60", 44460, 4-4-0. Fixed Cut Off.

"Canton," G. S. Griggs, 1849, 14 $\frac{3}{4}$ x20", 60", 4-4-0. Link.

"Neponset," G. S. Griggs, 1849, 14 $\frac{3}{4}$ x20", 66", 43050, 4-4-0. Link.

"Highlander," G. S. Griggs, 1850, 14 $\frac{3}{4}$ x18", 48", 41200, 0-6-0. Drop Hook.

"Roxbury," G. S. Griggs, 1851, 9x16", 54", 25350, 2-2-2. V Hook.

"Dedham," G. S. Griggs, 1851, 9x16", 54", 2-2-2. V Hook.

"W. R. Lee," G. S. Griggs, 1853, 15 $\frac{3}{4}$ x18", 66", 48950, 4-4-0. Variable Cut Off.

"Washington," G. S. Griggs, 1854, 15x20", 66", 48666, 4-4-0. Link.

"New York," G. S. Griggs, 1854, 15x20", 60", 48050, 4-4-0. Link.

"Mansfield," Taunton, 1855, 16x20", 60", 52900, 4-4-0. Variable Cut Off.

"G. S. Griggs, Amoskeag, 1855, 15x22", 54", 52500, 4-4-0. Link.
"Attleboro," G. S. Griggs, 1855, 15x20", 54", 44900, 4-4-0. Link.

Of the above 22 engines all were inside connected except the "G. S. Griggs." This engine was outside connected.

The disposition of these early engines may be of interest: "Norfolk," was the first engine built by G. S. Griggs, Master Meehanic of the road, and ran the work train when the "Tin" bridge was rebuilt in 1876. Was scrapped shortly thereafter.

"Suffolk," was sold in 1868 to the Norwich & Worcester R. R. and name was never changed.

"Bristol," was sold in 1869.

"Blackstone," was sold in 1870.

"Tagheonie," was sold in 1877.



Old Colony "Pilgrim". Mr. J. K. Taylor standing beside the engine.

"Iron Horse," name was changed to "Hyde Park" and engine broken up in 1878.

"Providence," was broken up in 1869.

"Canton," was sold in 1867.

"Neponset," was sold to the Rhode Island Locomotive Works where it was rebuilt and sold to the Northern Adirondack R. R. in 1885.

"Narragansett," was sold in 1878.

"Highlander," was a six wheel (all solid) connected engine, no trucks. This engine was entered in the Lowell trials with the "Neponset" and "Dedham" October 1 and 2, 1851.

"Roxbury" (1851) rebuilt and sold to the Rome, Watertown & Ogdensburg R. R.

"Dedham," (1851) sold to the Fitchburg & Worcester, R. R. and named "Uncle Tom."

"Mansfield," was formerly the "Hamilton Willis" from the Norfolk County R. R. Broken up in 1877.

"G. S. Griggs" (Amoskeag 1855) exploded her boiler, after re-building Mr. Griggs would not permit his name to appear on the engine and she was named "King Philip."

The records show that there were three different engines that bore the name "Providence," two "King Philip," two "G. S. Griggs," two "Canton," three "Dedham," two "Roxbury," two "Readville" and two "Stoughton."

The "G. S. Griggs" had a likeness of Mr. Griggs on the number plate.

The "John Winthrop" had the coat of arms of Massachusetts.

The "Roger Williams" had the landing of Roger Williams on What Cheer Rock, the city seal.

Roads making up the Boston, Clinton & Fitchburg R. R. had some interesting locomotives as follows:

Taunton Branch R. R.

"Meteor," Taunton Branch R. R. date unknown. Built at the old shops where Mason Machine Works now stands.

"Saturn," Taunton Branch R. R. 1861. Built at the new shops B. C. & F. No. 27.

"Jupiter," Taunton, 1861. Originally built for the Boston & Lowell R. R. to be named "Triumph." B. C. & F. No. 32.

"T. B. Wales," Mason, 1869, B. C. & F. No. 33.

"E. Baylies," Taunton, 1866, B. C. & F. No. 34.

"Chas. Richmond," Mason, 1870, B. C. & F. No. 35.

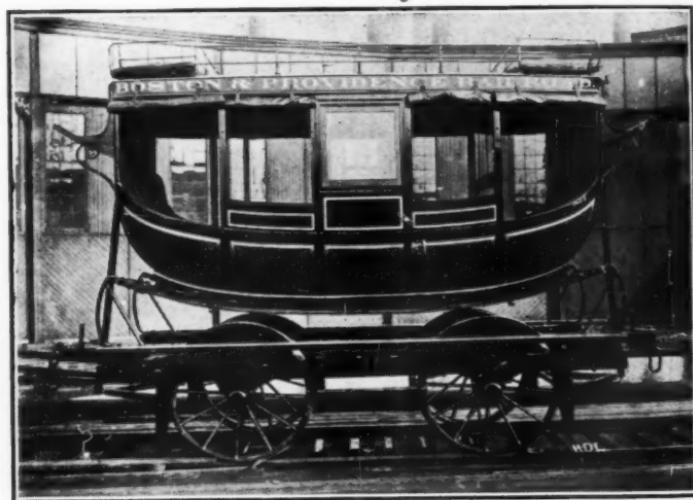
"W. A. Crocker," Taunton, 1871, B. C. & F. No. 36.

"W. B. Sproat," Mason, 1872, B. C. & F. No. 37.

"W. J. Rotch," Taunton, 1876, B. C. & F. No. 38.

New Bedford & Taunton R. R.

- “Nantucket,” Hinkley & Drury, 1841. The second engine built by H. & D. Sold to the Rutland & Burlington R. R. in 1848.
- “Hercules,” Hinkley & Drury, 1845.
- “Taunton,” Hinkley & Drury, —?
- “Phoenix,” Taunton & New Bedford R. R., date unknown.
- “Rocket,” Taunton & New Bedford R. R., date unknown.
- “Comet,” Taunton, 1847. Originally built for the Providence & Worcester R. R. and named “Pawtucket.”
- “Aeushnet,” Taunton Old Shops. No date. The boiler of this engine was lagged with brass.
- “Whistler,” Taunton, 1849. Originally built for the Rutland & Burlington R. R.



Boston & Providence Coach of 1833.

- “Alfred Gibbs,” Taunton, 1848.
- “Joseph Grinnell,” Taunton, 1867, B. C. & F. No. 28.
- “New Bedford,” Rhode Island, 1869, B. C. & F. No. 29.
- “Thos. Mandell,” Rhode Island, 1870, B. C. & F. No. 30.
- “Ward M. Parker,” Rhode Island, 1871, B. C. & F. No. 31.
- “Aeushnet,” Taunton, 1876, B. C. & F. No. 26.

Fairhaven Branch R. R.

"Fairhaven," Hinkley & Drury, 1854.
"W. L. B. Gibbs," Hinkley & Drury, 1854.
"Chas. L. Wood," Rhode Island, 1872. B. C. & F. No. 39.

Nantasket Beach R. R.

"Nantasket," was the old "Brookline" from the Boston & Albany R. R.
"Sagamore," was the "Royalston" on the Vermont & Massachusetts R. R.
"Allerton," Hinkley, 1870.
"Pemberton," was the "Buffalo" of the Boston & Albany R. R.
"Rockland," was the "Bison" of the Boston & Albany R. R.
"Grover Cleveland," Mason, 1887.

The builder "Taunton" referred to in the above lists is the Taunton Locomotive Works. Mr. William Mason built locomotives at Taunton as did the Taunton Branch and New Bedford & Taunton Railroads at that point. Both the Mason and Taunton Locomotive Works have ceased their locomotive building activities. The railroad shops that later were taken over by the Old Colony have since been closed by the present owners.

The following notes in regard to Old Colony locomotives may be of interest.

The "Miles Standish," so far as I have been able to learn, was one of the engines that hauled the first train over the road from Boston to Plymouth on November 10th, 1845. The other may have been the "Mayflower," but I don't know and have never been able to find out.

The most famous institution on the Old Colony R. R. was the "Fall River Line Steamboat Express," whose initial run was made May 19, 1847. The following is a list of locomotives that have been regularly assigned to this train—"Boston," "Middleborough," "Hudson," "Pilgrim" (the first one), "King Philip," "Old Colony," "Royal Turner," "Falmouth," "Plymouth Rock," "Pilgrim" (the second one), "Dorchester," No. 148 and No. 232.

In the spring of 1884 the famous "Dude Train," a strictly private train for the patronage of wealthy Bostonians whose summer homes were on Cape Cod, was added to the schedule

and the "Foxboro" was the first engine to handle the "Dude." In later years, when the train was heavier the "Dorchester" was one of the engines that handled this train.

Of the later engines the new "Pilgrim" was hailed in her day as the forerunner of the heavier type of engine that was to be used on our American railroads. Experts from far and wide came to view this wonderful locomotive.

So far as I can learn only one compound engine was ever attempted on the Old Colony and that was No. 232. Mr. Lauder, not being satisfied with her performance as a compound locomotive, rebuilt her to a simple engine and she then became a very creditable machine. His No. 261 was an attempt at larger power for use on the Shore Line, cut short by the leasing of the road.

Gone now are nearly all of these Old Colony engines. Not a dozen of them are in service today, which leads me to hope that this list will be of historical interest and value to our members and readers.

(Save for a few exceptions, the Old Colony and Boston & Providence R. R. locomotives that appear in this bulletin have already appeared in my work on each road).

Question Box.

Mr. C. Warren Anderson, Torryburn, St. John Co., New Brunswick requests information relative to a locomotive named "Horse Heads," built for the Utica, Ithaca & Elmira R. R. by the Portland Locomotive Works. This engine does not appear on this builder's list of locomotives. Mr. Anderson writes; "This engine had evidently been a very fine machine. The general appearance is of the locomotives of that period, (as built by Baldwin) although this engine was built by the Portland Works. On the tender are the letters "U. I." followed by a circle in which is painted three horses heads, two blacks and a white, with the letters "& E. R. R." following. The builders name is on a plate between the driving wheels and the name "Horse Heads" under the cab windows. Water is fed into the boiler by a pump instead of an injector. It is an American type."

Mr. Anderson thinks this engine was built about 1872. Can

any of our members identify this engine? Was it delivered to the Utica, Ithaca & Elmira R. R., what were its dimensions, and length of service?

Mr. Anderson is trying to get together a collection of locomotive photographs of engines built in St. John. Can any of our members help him?

Prof. John S. Worley of the University of Michigan, Ann Arbor, Michigan, advises that steps are being taken to collect and place at Ann Arbor the largest and most complete collection of books, documents, photographs, etc., on Transportation. This will include transportation in its broadest subject—canals, coast-wise and oceanic shipping, turn pikes, railways, automobiles and aviation. This promises to be a huge undertaking but a step in the right direction. Michigan ranks as one of the foremost universities in the world. It is centrally located, it is a state university but its influence is felt throughout the country. The president of this Society in a recent conversation with Prof. Worley was impressed with his enthusiasm for this project and his desire to make this collection a success. Prof. Worley's object is in lines similar to those of this Society. He has offered to place at our disposal, at any time, anything they may have. We cannot afford to overlook this kind offer and our members are urged to get in touch with Prof. Worley and if in any way, assist him.

One member of this Society has the hobby of taking large photographs of locomotives and then coloring the prints in such colors as the locomotive was originally painted. Another member of this Society either sketches his work or does them in water color. The frontispiece of this Bulletin was sketched by one of our members, Mr. E. Andre Schefer, No. 5 Rue de Midi, Sevres (S et O), France. It is the Old Colony R. R. "Pilgrim." Several water colors have been executed by him recently—"The Fall River Line Steamboat Express" and some of our New Haven trains. Those of our members who are interested in having a handsome water color or sketch would do well to get in touch with him at the first opportunity.

